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BALTIMORE, MARCH 2, 1894.

Do You Want Machinery?

If so, examine the advertising pages of the MANUFACTURERS' RECORD, where you will find the advertisements of 500 or 600 of the leading machinery manufacturers and dealers of the country. There is hardly any line of general machinery that cannot be secured from some one or more of our advertisers, but if you cannot find what you want in our advertising columns, write to the MANUFACTURERS' RECORD giving particulars of the machinery desired, and the information will be secured for you free of cost.

THE MANUFACTURERS' RECORD publishes this week several items of news about gold-mining matters in the South. We regret to say that there is very evident in many directions an unfortunate tendency to speculative operations in gold-mining. The South has gold, and it can be mined at a profit, but there is danger of too much speculation and too much boozing. It is well to be warned in time.

It all comes back to the proposition that the tariff is a local issue, but where we are especially unfortunate is that when it is a local issue for this part of the country for coal, it happens to be a local issue for New England to take it off, and that country always appears to have more "fluence" with the powers at Washington than the Southern country has. What New England wants she usually gets, no matter what party is in office.—Norfolk Landmark.

If New England usually gets what she wants it is because her business men make known the needs of their section and demand of their representatives such legislation as will tend to the development of New England. While we are hair-splitting over vague and uncertain theories, New England settles down to practical business and "gets there." If the South will make its influence felt in Washington as vigorously as New England does when it comes to its legislative necessities it will be equally as well taken care of. With New England it is "business before politics."

The Mills to the Cotton.

The MANUFACTURERS' RECORD learns that the sentiment in New England in favor of Southern cotton-manufacturing is growing very rapidly, and many of the shrewdest capitalists of that section are beginning to admit that the South will be the future great textile-manufacturing centre of America. We have already reported that the Massachusetts Company, of Lowell, and the Dwight Manufacturing Co. have asked for the privilege of increasing their capital stock for the purpose of building mills in the South. While neither of them expects to build at once, on account of the present business conditions, yet both expect to do so in the future. Recent reports say that Bliss, Fabyan & Co., as well as two other large companies, also expect to build Southern mills, and it is claimed that if this is true none of them will build a mill of less than 50,000 spindles. When business begins to revive and money seeks investment once more there will in all probability be such a rush of New England money into Southern cotton mills as we have never seen before. The very fact that these great concerns, that stand out as leaders in the cotton interests of New England, have applied to the State legislature for the privilege of increasing their capital in order to build mills South, and that they stated in their request that they could no longer compete with Southern mills for manufacturing the coarser grades of goods, is carrying conviction to many who would never have thought of accepting the statements of Southern people.

The "Whitney Syndicate."

The Wheeling Register, referring to the free-coal question, says:

There never was any such concern as the "Whitney Syndicate." This invention of the republican leaders was exploded long ago by Mr. Whitney himself, who expressly and emphatically denied that he was interested in any such concern or knew of anyone else who was.

If Mr. Whitney ever made such a statement he displays a marvelous amount of ignorance regarding the business affairs of this country, and we have never heard that Mr. Whitney was accused of not knowing what was going on in business circles. The MANUFACTURERS' RECORD has a copy of the last annual report of the Dominion Coal Co., of Boston, of which Mr. Henry M. Whitney is president. The stock and bonds of this company, aggregating about \$20,000,000, were floated by Lee, Higginson & Co., the largest banking-house, we believe, in New England, and one of the most conservative. The facts regarding the directory of this company have been so repeatedly published that it seems worse than folly for any newspaper to deny the existence of a company whose annual report for 1893, just issued, shows that it made net profits

last year of over \$300,000. If the Register is as reliable in most of its statements as in this one, its readers must have a sorry time if they have to depend upon it for information. The company mined last year nearly 1,000,000 tons of coal, and the net profit was, as already stated, \$300,000. When it gets into full operation, utilizing its entire capital, it will be one of the greatest industrial companies of the age.

Where the South's Money Goes.

Under the above heading the Savannah News preaches a sermon against the disposition of Southern people of all classes, from cotton planters to cotton commission merchants, to speculate in cotton. The News very truly says that speculating in cotton on the part of Southern people is almost as much a waste of money as investing in lottery tickets. Prices are not regulated by the law of supply and demand, except in the long run covering a period of years, when they may move up or down on a general average, as supply and demand may regulate, but the speculator who attempts to make money on short-time operations is very generally left. The South annually dumps into Wall street millions of dollars of good hard money to pay for cotton losses, and yet very little is heard of it. It is within bounds to say that within the last twenty years the South's net losses on cotton speculations have run up to a hundred million or more. This money, had it been kept at home and invested in development enterprises, would have added vastly to the wealth of the whole South, furnished employment to many thousands of hands and brought profit to those who owned it. Producing as the South does not far from \$2,000,000,000 of agricultural, manufacturing and mining products a year, there ought to be a very large surplus, and this surplus will constantly increase as speculation in cotton futures decreases.

How Southern Trade Pays.

Despite the fact that many of the largest industrial plants in the country were shut down during the last three months wholly or in part as a measure of economy in order to meet expenses, the Stilwell-Bierce & Smith-Vaile Co., of Dayton, Ohio, has had enough business to warrant it in declaring the usual 2 per cent. quarterly dividend, payable March 1. This concern, which is one of the most extensive in the country, has been among the foremost to appreciate the opportunities offered for Southern trade, which has so developed that the company has established offices at Atlanta and elsewhere. It has also recognized the advantages of the MANUFACTURERS' RECORD as an advertising medium, and made liberal use of printer's ink. The financial condition

of the corporation shows how this has paid.

Preferring Foreign Competition to Southern.

As the New England cotton trade is being generally outfoxed by the Southern States, so Pennsylvania's iron trade is being overshadowed by the Alabama producers—it begins to look as if the Eastern States would need less protection against European competitors and more against the enterprise of Southern progress.—Philadelphia Times

Six or seven years ago a leading hardware merchant handling the goods of thirty or more of the most prominent hardware manufacturers of New England said to the editor of the MANUFACTURERS' RECORD that New England manufacturers would soon become free-traders, because, said he, "we would rather meet foreign competition than to see the South, with its great natural advantages, develop the manufacture of hardware, as we would then have to face the competition of that section, and we would rather have foreign rivalry than Southern." That prediction is now being fulfilled, and while there are many New England manufacturers who take a broad national view of protection and believe in it on principle, there are many whose personal interests cause them to disregard the fact that for thirty years their section has grown rich through protection, and that fairness demands an equal show for the South. They not only want protection on all that they manufacture, but they want to insist upon free crude materials used in the production of the goods on which they demand a tariff, and the people who are doing this are the Dominion Coal Co. people, ex-Governor Russell, of Massachusetts, and other democrats from whom the South has a right to ask for better treatment. The MANUFACTURERS' RECORD would far prefer not to have to raise the sectional issue. For twelve years it has sought in every way possible to present every subject from a national standpoint, but it is fighting for the South, as it has always done, first, last and all the time, and hence it is compelled to protest against the demands of those New Englanders who are seeking free trade on what they consume and protection on what they produce as an injustice to the South. Fulfilling the prediction made six years ago, the New England Iron and Hardware Association at a late meeting took what the Boston Advertiser called "very advanced ground" in adopting resolutions calling upon the ways and means committee to repeal the duty on pig iron, scrap iron and scrap steel. "Nothing but free pig iron and scrap," said one of the speakers, "will restore to New England the right and power of doing her own steel-making and iron manufacturing, and it is in this respect that the Wilson bill falls far short of the just demands of

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the New England people, for it imposes a duty of 22½ per cent. upon these basic articles, and thus continues the appropriation of the old tariffs by still retaining a duty which is prohibitory under the present and probably future conditions of market. Of great importance to the ironmakers is the proposed removal of duty from coal. Right and justice call for the complete removal of the duty upon pig iron and scrap iron and scrap steel, but if the interests of the government require a revenue from these articles, whatever duty may be put upon them should be accompanied by internal revenue duty of the same amount upon pig iron made in this country. By that expedient the burden of the tax would be fairly distributed and not put upon the coast alone, and the tax upon crude iron would no longer be used as an instrument for uprooting the industries of New England."

Such was the position taken by the New England Iron and Hardware Association at this meeting. Comment is almost unnecessary. Seeking protection on its own productions, it is not even satisfied with free coal and free iron ore, but demands free pig iron, and if this cannot be had, demands an internal revenue tax upon every ton of pig iron produced in order that the South, which produces all the pig iron, might not receive any benefit from its low cost of production, but that by an internal revenue tax its cost should be made the same to the iron works located in Alabama or Virginia as to the iron works of New England. When the prediction was made six years ago by the hardware friend of the writer it hardly seemed possible that the time would so soon come when the leading manufacturers of New England would demand such a radical change as this.

OMAHA is considerably elated over a report made by engineers that it is possible to build a water-power canal at that place which would afford 21,000 horse-power. Commenting on this, the Philadelphia Record speaks of it as an immense thing for Omaha, and says that it would give that city the greatest water-power of any place in the country except Niagara. This is all very good, but a greater power can be developed on the Potomac river not far from Washington, and there are other powers of equal possibilities in the South. When it comes to water-power, no other section of the country except Niagara itself is "in it" in comparison with the South.

MR. JOHN E. CALDWELL, of Velasco, Texas, writes to the MANUFACTURERS' RECORD as follows:

Much depends on the action on sugar, for if not driven out of business this country will largely develop. Five parties now in correspondence with me looking to central factories to be located near here are holding off until Senate acts.

THE Boston Traveler says:

The most hopeful sign of the awakened intelligence of this region (the South) is the order recently sent out to agents of the Southern Associated Press to telegraph more industrial and business items and fewer pieces of mere sensationalism.

The Usual Result.

The Ybor City Ice Works, Tampa, Fla., writing under date of February 19 to the MANUFACTURERS' RECORD, says: "We have received a number of letters of inquiry through your journal; in fact, more than through any other we have tried."

THE WEEK IN THE SOUTH.

Condition of Business and the Latest Features of Southern Progress Summarized.

Special reports to the MANUFACTURERS' RECORD show that more new enterprises have been organized in the South during the past week than during any week for several months, while a number of plants now in operation, especially cotton mills, are being enlarged. Added to this favorable condition is the resumption of work by a number of manufacturing enterprises in various parts of the South. There is much complaint from many correspondents regarding the injury to business matters by the tariff agitation, and quite a number of projected enterprises, in lumber and sugar especially, are held in abeyance, awaiting the decision on these interests. But, despite the restricting influence of tariff legislation, the business situation is gradually improving throughout the South, with more disposition evinced to engage in new enterprises. Outside capitalists continue to make investments in Southern properties, and during the week sales have been reported of 9000 town lots, scattered through various towns along the Gulf, Colorado & Santa Fe Railroad, for an aggregate of \$375,000, the purchase having been made by Northern capitalists; a 20,000-acre tract of North Carolina timber land has been sold, and some extensive real-estate investments are being made in the mountain section of that State. Arrangements have been made for shipping Kentucky coal to Chicago on a very large scale.

A special dispatch to the MANUFACTURERS' RECORD states that a contract has been made for the building of 400 miles of railroad in the Southwest, a part of it through Arkansas. The volume of railroad traffic in the South is gradually increasing, and special attention is being devoted to the handling of tropical fruits on fast trains from Mobile, New Orleans and Galveston to the West, one railroad having recently ordered several hundred refrigerator cars for this business as well as for the trucking traffic.

Among the more important industrial interests reported in the Construction Department of the MANUFACTURERS' RECORD during the week were extensive mining and lumbering operations in Kentucky by Cincinnati capitalists, a large asphalt-manufacturing concern in Texas, a \$95,000 oil and cold-storage company in San Antonio, a \$140,000 cotton-mill company in South Carolina and preliminary arrangements for the organization of a \$500,000 cotton-mill company in the same State, a \$100,000 oil and gas company and a \$100,000 lumber company in West Virginia, the purchase at Buena Vista, Va., of extensive machine works by Western people who will put them in operation, \$100,000 to be spent for the improvement of county roads in Colbert county, Ala., the letting of a contract for the erection of a cotton mill at Portsmouth, Va., and a number of miscellaneous enterprises, including ice factories, canning factories, flour mills, electric-light works and municipal improvements.

A marked interest in gold-mining matters is developing in the Southern gold-mining districts, and there is considerable disposition shown to establish extensive plants for gold-mining operations.

Pushing the Canal Scheme.

A New York dispatch states that while the reorganization of the Nicaragua Canal Co. is being actively forwarded in that city, the Washington agents of the company are also taking active steps to have a bill put through Congress that will hereafter enable the company to ask the active co-operation of the government in the building of the canal.

BUSINESS CONDITIONS SOUTH.

Extracts from Letters to the Manufacturers' Record.

Statesville, N. C.—Messrs. Key & Co., manufacturers of tobacco: "We now have under consideration and will probably erect a large factory about five and a-half stories high, main building at least 100 feet long. This factory will probably be built during the spring and summer. We are now manufacturers of tobacco, but will put up a large factory with the idea of increasing our capacity. The tobacco interests in this town are considerable, and are being pushed rapidly forward by the number of enterprising and energetic men who are engaged in it. While there was very general depression during 1893, as you know, with tobacco manufacturers, as well as with other classes of manufacturers, the factories operating in Statesville have been able to dispose in every instance of a large proportion of their stock; in fact, some of the factories are entirely out of leading brands, and in nearly every instance will be entirely out of goods before active operations commence this spring. The business is on a very substantial and permanent basis, and every manufacturer here will largely increase his capacity during 1894. During the hard times of 1893 our manufacturers were able at all times to purchase leaf for cash and pay their hands off in the same way, and not in scrip, as some other tobacco-manufacturing towns were obliged to do during the year. It is the coming business of this town, and is making rapid strides forward. We think Statesville has suffered less from the money panic and general depression in business during the past twelve months than almost any town in North Carolina. Her financial institutions have been most admirably conducted, and in such a manner as to afford accommodation to both the manufacturer and business man. During 1893 there was only one business failure here, and merchants have done remarkably well, considering the hard times. One of the largest cotton factories in the State has just been completed, and will commence operations in the next two or three months, thereby giving employment to a large proportion of the working classes, who are doing comparatively nothing."

Rome, Ga.—Mr. Harper Hamilton, attorney-at-law: "Business is very good here, but there does not seem to be a feeling of enthusiasm." Greenville, S. C.—Messrs. Hunt & Adames: "We think prospect for business much brighter than six months ago." Santa Anna, Texas.—Mr. H. M. Phillips: "On account of the long-continued drought business in this part of Texas is very quiet, and very few business enterprises are starting up." Huntington, W. Va.—The Tri-State Shirt Factory: "We think business will be very good in this State this year. We expect a noted improvement as soon as the Wilson bill passes the Senate." Pine Bluff, Ark.—The Bluff City Lumber Co.: "We think the outlook favorable to an early resumption of trade; our salesmen are already sending in some nice orders at fair prices. Stocks of lumber in this section are larger than last year at this time." Bridgeport, Ala.—The Bridgeport Stove Works: "The furniture factory, iron-pipe works, handle factory, woodenware factory and stove works are all active and doing well. Business is improving. Large saw mill of the Bridgeport Lumber Co. is about to start up, and probably the planing mill soon. A new industry is in contemplation here."

Elizabethton, Tenn.—Mr. H. E. Clement, secretary of the Tennessee Furniture & Lumber Co.: "Our factory is 150x80 feet, two stories, with engine-house and dry-kiln added. Could run 100 hands did

business warrant it, but will at present start with small force on a few specialties. Our town outlook is good, buildings starting in all directions, about twenty-five houses now in construction."

Bristoe, Va.—Messrs. R. H. Davis & Co.: "Prospect for business not reassuring. Cabin Branch Mining Co. constructing narrow-gage road from Dunfries, this county, to tidewater on the Potomac. Baltimore & Ohio Railroad constructing an extension from Linden, Md., to Fairfax Station, on the Richmond & Danville Railroad."

Petersburg, Va.—Mr. J. N. Huston, secretary and treasurer of the new Petersburg Iron Works Co.: "The Petersburg Iron Works Co., with an authorized capital of \$100,000, will operate the Petersburg Iron Works, formerly operated and owned by H. T. Morrison. We expect to be in operation by March 1. With the opening up of spring there promises to be a revival in business affairs, and the indications appear good for doing a healthy business in our line within the next six months."

Eureka Springs, Ark.—Citizens' Bank: "The present status of business with the merchants and general stores is a great deal better than expected, and by early summer it is believed the return to the customary good trade will be accomplished."

Wheeling (W. Va.) Register: "One can notice a big difference visiting the Baltimore & Ohio freight centres of this city now from a month ago. For several months past the freight handlers have not been very busy, but within the last week trade has increased remarkably. Wheeling and through freight is getting heavier every day. Last Monday night there was more freight in the yards here than for a year."

Bear Spring, Tenn.—Messrs. White, Dixon & Co.: "We know of no other furnaces in this section that are likely to start up this year. We are now making about twenty-five tons charcoal pig iron daily. Our iron (the old Dover) stands very high with all the foundries in the East, although plant has been idle for eight years."

W. S. R. Parker, agent Gulf, Colorado & Santa Fe Railroad: "I notice a visible increase in Texas business, especially in the eastern towns. There will undoubtedly be a revival of business from this time forward, though it's not going to revive with any great rush."

Anniston, Ala.—The Anniston Pipe & Foundry Co.: "We employ 300 to 500 men; output, 200 tons cast-iron pipe daily, twenty-five tons special castings. Outlook for business very good. Inquiries for our product are numerous. Know of no new industries contemplated in this section, except Anniston Rolling Mill will probably be operated for the manufacture of merchant bar in the near future."

Maxton, N. C.—Mr. R. A. Field, superintendent of the Maxton Cotton Mills: "Undecided when to start mill; too much Wilson bill. No new enterprises; outlook very discouraging."

Brewton, Ala.—Mr. H. W. Theis, of the Brewton Carriage and Wagon Works: "Business is brighter than it has been for the past ten months, and prospects are encouraging."

Maxton, N. C.—The Maxton Manufacturing Co.: "We think the outlook is improving."

Centre Point, Ark.—Mr. J. A. Hughes: "The outlook is gloomy now, but will improve on making a crop."

King's Mountain, N. C.—Mr. P. S. Baker, secretary and treasurer of the Crowder's Mountain Cotton Mill: "Business outlook is brightening. King's Mountain Manufacturing Co. has orders on warp for night and day run for months ahead at fair prices. Enterprise Mills contemplate putting in fifty looms soon; running night and day on warps. King's Mountain is beautifully located for manufacturing, labor

and fuel cheap and climate remarkably healthy. Dilling Cotton Mill Co. pushing its work and will be complete in a few months."

Atlanta, Ga.—The Winship Machine Co.: "Our goods go directly into the hands of farmers engaged in the cotton crop. Purchases are not made until May, June, July and August. Don't expect any big things, but if crop is fair will get our share."

Little Rock, Ark.—The Wiggins-French Engineering Co.: "It seems to be the general belief that as spring opens up business in all branches will improve, but at present everything is quite dull."

Wheeling (W. Va.) Register: "In October inquiry by Register reporters at fifty-four of the leading industries in the city and vicinity showed that 4467 hands were actually employed in those plants. On February 23 in the same plants 6739 men were at work, an increase of over 2200."

Production of Naval Stores in the South.

The production of naval stores in the South has reached figures which are astonishing to the reader who is unacquainted with the development of the industry. At present the yearly output in round numbers is 2,000,000 barrels divided into 1,600,000 barrels of rosin and 400,000 barrels of turpentine, which amounts to 40,000 carloads. As the cost for transportation averages fifty cents per barrel, the freight bills in the course of a year reach \$1,000,000. This shows how important the turpentine stills are to the railroad companies as a source of revenue.

The following statistics showing the importance of the various operations connected with the industry are given by Mr. C. B. Warrant, a regular correspondent of the MANUFACTURERS' RECORD, to the Savannah News: About 800 stills are kept busy eight or nine months in the year. The average capacity of each still is eight barrels, yielding five barrels of rosin and one to one and a-half barrels of spirits of turpentine. Three hundred and thirty thousand charges have to be run, employing 800 stillers and as many assistants. Two thousand and five hundred coopers are employed to get the material and to make the barrels. To remove this amount of crude gum from the forest to the stills, and thence to the shipping point, 6000 mules and 2500 teamsters are steadily employed. The cost of the still, mules, wagons, horses, tools and value of boxes already cut will exceed \$6000 to the still, representing a capital of about \$5,000,000 invested in the turpentine business. Allowing twenty crops of boxes, consisting of 10,500 boxes each to the still, there are 168,000,000 boxes in operation. Allowing two boxes to the tree, on an average, there are 84,000,000 pine trees being bled.

All this work is done by about 40,000 men, 7,000 mules and horses being used for hauling, etc. To secure 2,000,000 barrels of distilled product, 2,500,000 barrels of crude gum are necessary. It is estimated that 25 per cent. more gum will be produced next year, as a new method of scraping the trees by steam is to be introduced. The 800 stills pay \$3,000,000 in freight and rent to landowners. The amount of wages reaches \$4,800,000 annually, which does not include the cost of box-cutting and tree-raking and scraping, which is over \$200,000 more. About \$840,000 is paid for horse feed, most of which is bought in the West. A barrel of turpentine brings about \$13.00, and a barrel of rosin \$3.00 and over, making the total value of the output \$10,000,000. The factors receive \$500,000 commission, and other charges, such as storage, insurance, etc., aggregate \$200,000. The net profit averages about \$650 per still simply from its operations. The city of Savannah, Ga., receives nearly 75 per cent. of the production for shipment, and is the largest naval stores market in the world.

Gold and Silver Mining in the Southern States.

From a review of gold-mining in the South for 1893, prepared by Mr. Stuart W. Cramer, M. E., for the Engineering and Mining Journal, the MANUFACTURERS' RECORD makes the following extracts:

"The first authentic find of gold in the United States was that of the Reed nugget in 1799 in Cabarrus county, N. C. By 1848 the domestic production reached \$24,936,769; \$12,808,575 of it was deposited at the mints, of which all except \$37,850 was recorded as being from the Southern States.

"The following table includes my former estimate of the total production of gold and silver brought up to date by adding that for 1893:

	To end of 1892.	1893	Total.
Maryland....	\$44,976	\$103	\$45,079
Virginia.....	3,159,610	5,919	3,195,529
North Carolina.....	21,885,844	66,237	21,652,081
South Carolina.....	3,354,509	125,904	3,480,413
Georgia.....	15,902,260	106,440	16,008,700
Alabama.....	409,373	6,387	415,760
Tennessee.....	165,520	269	165,789
Total.....	\$14,652,098	\$311,259	\$14,963,357

ESTIMATED PRODUCTION OF GOLD AND SILVER IN THE SOUTHERN STATES FOR 1893.

States.	Gold, Value.	Silver, Coining Value.	Total Value.
Maryland.....	\$103	\$103
Virginia.....	5,891	\$28	5,919
North Carolina.....	50,852	15,385	66,237
South Carolina.....	125,478	426	125,904
Georgia.....	106,440	394	106,440
Alabama.....	6,281	103	6,387
Tennessee.....	268	1	269
Total, 1893.....	\$24,972	\$16,337	\$311,259
Total, 1892.....	306,016	12,740	318,756

"The cyanide process bids fair to obtain a foothold in this section, and flattering results were expected at the Moratock mine, North Carolina, and Creighton (old Franklin mine), Georgia. The former has been abandoned, and the owners of the latter have contracted with the Mecklenburg Iron Works, of Charlotte, N. C., to put in a chlorination plant according to Thies's specifications. The smelter at Thomasville, N. C., has been run in an intermittent way, but toward the close of the year large quantities of ore (zinc-lead-silver ore) from Silver Valley have been received, and the general impression is that steady work will be carried on. Another plant is being erected at Blacksburg, S. C., for treating custom ores; like the smelter, however, it will rely on associated mining companies for the bulk of its ores. It will be known as the Caloric Reduction Co.; the process will be chlorination. A sulphuric acid and fertilizer works will be run in conjunction with it. Dr. Ricketts is the consulting engineer of the company, which promises well for its success.

"Almost the entire production of South Carolina is the output of two mines, the Haile and Brewer. Both hold their own and promise equally good work for the coming year. It may be said that the best milling and mining practice in the South is that carried on here.

"In Georgia the industry is looking up. Col. W. A. Charters has bought an interest in the Hand and Barlow mines, and it is understood that new work is contemplated. Captain Ingersoll, who for years has dropped for his companies from 100 to 150 stamps, still has charge of all the work. The Findley, also near Dahlonega, has been added to this company's holdings. Singleton, Ivy, Lockhart and Bast mines, owned by the Dahlonega Company, Limited, were sold at public sale early in the year, and the two first mentioned subsequently operated. The Wells and Norrel, near Auraria, have been worked during the year; also the Glover, Loud and Yonah, in White county. In the McDuffie district the Smith mine has held its own and

promises to continue it into the coming year. The Creighton Mining & Milling Co., operating at the Franklin, in Cherokee county, as I have said before, is installing a chlorination plant. Its work during the year has been productive, and will no doubt be doubly so when the new plant is started up."

Gold in Georgia.

CEDARTOWN, GA., February 17.
Editor Manufacturers' Record:

I am very glad to observe the attention which the MANUFACTURERS' RECORD is giving to recent developments in the gold field of Georgia and Alabama. We are just on the eve here of a new era in the history of the gold mines of this section, and one which is going to surprise the country at large. The new geological survey, under the management of Dr. William S. Yeates, is wisely doing its first work on mineralogical lines, and has in process of preparation an early report on the sulphuret gold ores of Georgia, the publication of which will bring in capital (and what is even more needed, experience,) with a rush. In fact, Western gold-miners, singly and in parties, are coming in now almost daily, and are very frank in their expressions of astonishment at the condition of things which they find obtaining here. I have talked with over twenty such men within the past month in the exhibit car which I am now fitting up to go through the Northern and Eastern States for this very purpose of advertising the mineral resources of north Georgia and Alabama, and I have received from them all the frank admission that deep mining for gold in Georgia with improved methods and machinery will probably prove more profitable than it has been in Oregon and California. A brief examination of the facts may prove interesting. Some of these facts are, perhaps, already quite familiar to your readers, but you will bear with me if I repeat them. The gold field of Georgia covers a strip of country from twenty to forty miles in width, running clear across the State in a general northeasterly and southwesterly direction, embracing not less than 7000 square miles. It terminates over the Alabama line in a triangular end some seventy miles in width, containing about 3500 square miles of "productive area"—that is to say, of area in which gold-mining has at some time or other been carried on with success. About the year 1845 placer-mining of a more or less primitive character was in progress all along this belt from the mining town of Arbacoochee, in Cleburne county, Ala., up almost to the North Carolina line. Arbacoochee, now containing less than 300 people, was then a town of 5000 inhabitants. From 1830 to 1850 the prospector was a familiar figure among the hills of Georgia and Alabama. Col. A. J. McBride, of Atlanta, recently told me that in riding some seventy miles through the southern end of the field in the year 1849 he saw not less than 10,000 miners working the placer deposits, mainly with "long toms" and with iron-shod wooden stamps, and such like primitive means. By the year 1852 nearly all the men had pulled out for California, leaving behind them, to attest the gold with which these old hills must have rewarded their labor, miles of old trenches, in some of which good sized trees are now growing. Up to the organization of the mint at Dahlonega in 1838, the estimated amount of gold secured in Georgia was \$1,500,000. From that time until 1861 the production coined in Dahlonega was \$6,106,159. The total value of gold mined in Georgia and returned to the mints and assay offices since the organization of the mint at Philadelphia is \$8,935,852. To this must be added whatever was produced during the war, together with a great deal used in the arts and not accounted for, which make the total value up to 1891 somewhere about \$9,500,000 or \$10,000,000. The amount

secured in 1891 was \$80,104, drawn from a very limited area. In considering these figures it must be borne in mind that all this has been accomplished by the most primitive methods, the pick, the shovel and pan being the principal implements used in finding and securing the precious metal, and the absence of proper machinery, capital and experience having very heavily curtailed the output. In the year 1879 the total amount of capital invested in the State in gold-mining was but \$97,580, and in 1892 it had only increased to \$297,823, an increase, however, of 205 per cent. in thirteen years.

All these results have been achieved on the so-called "free-milling" ores, and on the placer deposits of the State, very largely by the latter means, and still but a small portion of even the placer area has been, as yet, even touched. Small properties with abundant water at hand have, in a few cases, been worked out, but only in three or four instances has there been any systematic effort made to bring water from any distance, or to apply progressive Western methods for extended placer working on a large scale to Georgia mines. There is a very large and promising field of work ready for the intelligent placer miner with the capital and experience necessary to do the work properly by modern methods.

The gold in the placer workings in a few cases is what is termed in this district "plate gold," which means occurring in thin sheets, not easily brought into intimate contact with the plates, but in the majority of cases it is granular and easily amalgamated. I know of one place where there is enough free-milling gold ore demonstrated to run ten mills of 200 tons capacity for thirty years, apart from all consideration of sulphurates, and where an average of fifteen analyses of the ore gave a value of \$8.62 per ton.

The origin of the placer deposits both in Georgia and Alabama is uniformly the quartz seams, originally carrying both free gold, more or less fine and mixed with the quartz, and auriferous pyrite or "sulphuret," as it is called, meaning a compound of iron and sulphur. Occasionally this sulphuret contains a small percentage of copper, rarely more than 2 per cent. The resultant product of the decomposition or oxidation of this sulphuret is a red or brown oxide of iron, which remains, and is often accompanied by free gold in the ore and a sulphate of iron, which, being soluble in water, is washed away. Decomposition in most cases extends, to a greater or less degree, as far down as water-level, the ore appearing as a friable quartz, penetrated with small veins of oxide of iron, around which the free gold is concentrated. Below water-level the pyrite is, of course, unchanged. It is very much richer than the ore higher up in the veins, because still retaining all its gold contents, and requires merely the use of some economic method of calcination.

It is in these sulphuret ores that the greatest wealth of the two States lies, and no effort worthy of mention has ever yet been made to work them. The veins are large and regular, and are well defined. Immense amounts of ore can be readily laid bare, so there remains only the question of economic handling and reduction. The right methods have been perfected, and are now being successfully operated in other sections of the country, and whenever similar plants are erected in the heart of this district there will be inaugurated the most profitable industry the State has ever seen. It will not be long, either, before this is an accomplished fact.

The Creighton Mining & Milling Co., the present owner of the old "Franklin" mine, in Cherokee county, Ga., (which has been in successful operation most of the time for the last thirty years), has concluded a contract with the Mecklenburg Iron Works, of Charlotte, N. C., for the

erection of a complete chlorination plant, according to Thies's specifications, on their property. The immediate result of such a move on the part of this prosperous company will be, I hope, the speedy establishment by some other good concern of a similar plant for treating custom ores, a large supply of which could be at once guaranteed by associated mining companies. In connection with a sulphuric acid works it would prove a most profitable investment indeed, and it is an enterprise which I am surprised has never yet been inaugurated, in view of the facts I could present in favor of it from my own experience.

Mr. J. S. Hamilton, of Gainesville, Ga., who owns the Southern rights on a recently-patented new application of barrel chlorination, has just finished a series of tests on the ore from the Stringer property, near Gainesville, by his process, the results of which are very interesting. Under the direction of Dr. N. P. Pratt, of Atlanta, a very large number of tests of this ore (which is a mixture of galena and pyrite in a quartz matrix) developed an average value of not less than \$30.00 per ton of gold and silver, with a cost of reduction (in the case of the experimental plant) of not exceeding \$4.00 per ton.

I have myself examined many such veins, some of which run very high indeed. The "Wells" mine, which had been worked to water-level and abandoned, has been gone down on to a depth of seventy feet by a new company, with the result that six assays of the ore ran, respectively, \$24.00, \$80.00, \$100, \$149, \$201 and \$409 per ton. Preparations are now being made to sink a shaft on this property to a depth of 205 feet, the mine to be equipped with modern appliances and a mill having a capacity of fifteen to twenty tons per day.

I have just completed the third 63-foot shaft on a vein of pure iron pyrite of a crystalline and fragmentary character in a decomposed slate matrix, which is being developed as a sulphuric pyrite, but which, to my surprise, also carries from \$10.00 to \$20.00 per ton of gold. The analysis of this ore is as follows:

	Per cent.
Moisture.....	0.40
Sand and insoluble.....	1.02
Iron bisulphide.....	98.43
Undetermined.....	0.15
<hr/>	
Equivalent to metallic iron.....	45.97
Metallic sulphur.....	52.46
Value of gold per ton.....	\$10.80

The vein is regular, with uniform dip and trend between well-defined walls and carrying from eight to sixteen feet in width of ore, which runs 75 per cent. by bulk of clear pyrite after crushing and washing. The ore is soft, easily crumbling in the hand, and is the best sulphuric pyrite I have ever yet seen. Whether anything like this per cent. of gold will be found to be an average of so large an amount of ore is, of course, questionable.

I have also just examined another vein of sulphur of a highly crystalline character in the same vicinity, two carloads of which, on shipment to a reducing plant, have just given a net profit of \$22.50 per ton after paying freight for an 800-mile haul.

These facts go to show that the richest gold mines of Georgia are, as yet, untouched. It is earnestly hoped that the attention of men skilled in reducing sulphurites will be attracted to these and a host of other facts which can be laid before them here, and that we shall have at no distant day smelters at Gainesville and at Atlanta, and that the State Agricultural College, which has had the possession of the Dahlonega mint building ever since it was seized by the Confederate government at the breaking out of the war, will soon be moved into other quarters to allow the coinage of Georgia gold to be recommenced in the old quarters.

Daily evidences of renewed activity are

observable, especially in the Dahlonega district.

The Singleton, Ivy, Lockhart and Bast mines, owned by the Dahlonega Co., Limited, were recently sold, and the two first named have been put into operation.

The Wells and Norrel mines, near Auraria, are also in operation, as are also the Glover, Loud and Yonah, in White county. From one of the latter mines I was shown last week a double handful of fibrous shreds of the prettiest gold I have ever seen.

The Smith mine, in the McElvane district, is in operation and reported to be doing well, and the Creighton Mining & Milling Co., operating the Franklin mine, in Cherokee county, is, as already above stated, preparing to put in a chlorination plant. The latter property is too well known to require commendation, having always been operated profitably.

New work is in contemplation at the Hand and Barlow mines, under the management of Captain Ingersoll, who has been, I believe, operating for them some 150 stamps, and is said to have just acquired the Findlay mine also.

The Loud Company and the Hand Company are the only ones I recall which are now working by the old Georgia method, of hydraulic mining pure and simple.

I hope soon to be among Northern cities with an exhibit car which will be especially designed to demonstrate, by cabinets of samples, these and other facts about the mineral wealth of north Georgia and Alabama, and I trust by this means to gain a fair consideration for our sulphurite gold ores among practical, experienced men. The development of the mineral wealth of the two States, together with immigration to Georgia farms, will be the lines of work proposed for this car and, I hope, by others to follow it, and, in connection with the lesson to be taught by the coming great Cotton States and International Exposition at Atlanta, will result in some good, at least toward building up what I believe to be the most remarkable State in the Union in point of diversity of natural resources combined with every advantage, climatic and otherwise, for their development. I have no doubt that some of my statements will be met with a very incredulous smile. I remember this smile well. I saw it once before very generally used when we first talked about making Southern iron during the early days of Birmingham, and I venture to predict that the immediate future in the gold fields of Georgia is going to surprise these same old doubters again now as much as the astounding developments in Southern iron did then.

GEORGE HUNTINGTON CLARK,
M. Am. Soc. C. E.

News About Gold.

A dispatch from Dahlonega, Ga., to the Atlanta Constitution says.

"Much excitement prevails here in mining circles over the discovery at the Singleton mine of a vein of ore three feet thick which is literally hung together by strings of gold. It is hard to estimate its value, but it is the richest find ever made here. John Weaver, who is in charge of the mine, has placed a guard over the vein to prevent the ore from being carried off by robbers. The rich strike is only half a mile from the courthouse, and hundreds are going out to see it. The excitement is spreading, and telegrams have been sent by the prospectors, who are here from Colorado, to their friends in the West, which will result in bringing many Western miners here to investigate this locality."

"A gold mine is being opened up in the street near the public square and is yielding ore worth \$50.00 per ton.

"Many gold properties are changing hands, and a lively interest is manifested on all sides.

"Mr. F. G. Benham, of Ohio, is among

the latest arrivals, and has purchased the Davis mine, near town, and has placed a large force of miners at work opening it up.

"It is rumored that a sale of mining property is about to be made to Chicago capitalists, involving \$150,000."

A dispatch from Montgomery, Ala., says that a number of Colorado mining experts have recently been investigating the gold resources of Alabama, and that upon their report a company is being organized in the North in connection with some Alabama people for the purpose of developing gold mines in Coosa and Clay counties.

From Frederickburgh, Texas, comes a dispatch that Dr. Christopher Althens has discovered gold-bearing quartz which assays \$992 worth of gold and \$80 worth of silver to the ton. As all that section of Texas in the neighborhood of Gillespie, Marion and Llano counties is marvelously rich in minerals, it would not be surprising if it should become a very productive gold region.

From Canton, Ga., comes the following dispatch about gold matters: "Considerable excitement has been created here over a new find on the Rudasill gold mine property. Three large parallel veins have been uncovered of rich gold-bearing sulphurite ore, very similar to those of the noted Franklin mine, which are now making the fortunes of their owners. These are parallel to the rich nugget vein that made the great Rudasill placer. We understand that considerable Atlanta capital is being invested in this property, and preparations are now being made to work the free-milling vein. This has always been considered a good thing by the old citizens of Cherokee county, but is developing beyond the predictions. The parent vein is found to be from six to eight feet in width between the first wall and the hanging wall, and assays as rich as any sulphurite ore yet discovered in north Georgia. The fame of old Cherokee's gold veins has gone abroad, and many inquiries are coming in from the West and North."

[There is serious danger of too much speculation and too many exaggerated reports about gold matters.—ED.]

\$375,000 IN TEXAS LANDS.

New York Capital Invested In 9000 Lots in That State.

The way Texas, like other portions of the South, is attracting the attention of investors is shown by a dispatch from Houston, Texas, which states that Frederick J. Miller, of New York, has bought for \$375,000 cash 9000 lots situated along the line of the Gulf, Colorado & Santa Fe Railroad. The sale was made through Land Commissioner T. W. Jackson, of that road. The lots of the road which have been purchased by Mr. Miller are located along the line of the road, and extend from Wallis to Gainesville, from Temple to San Angelo, and from Cleburne to Paris. But few of the lots referred to are located in the larger cities or towns of the State, but those that are so located are considered very valuable.

THE question of the quantity of coal in the Walden's Ridge region, near Chattanooga, has been a subject of much dispute. Some have claimed that there is an abundance; some have insisted that the supply is so small that any extensive mining operations would exhaust it. To test the matter, Mr. T. J. Nichol proposes to diamond drill very extensively and has already started six drills. These will go down 600 feet in order to settle at once the question of the quantity of this coal.

A DISPATCH from Victoria, Texas, states that 22,000 acres of land in Calhoun county have been sold for \$132,000 to the Devest Folke Society, which will place a Danish colony upon it. The property was owned by W. H. Thomas.

Southward Move of Emigration.

[Special Cor. MANUFACTURERS' RECORD.]
KISSIMMEE, Fla., February 24.

It is quite generally conceded that the industrial immigration to Florida must from now on come largely from the West and the great Northwest. The trend of immigrant travel from the Northern seaports is directly west, and so far all efforts to turn even a portion of it southward have proved unavailing. These conditions have just found a new illustration in the project of Mr. Hamilton Disston, of the Disston companies, to secure immigration for the extraordinarily fertile lands which the drainage operations of these companies have opened to settlement and cultivation.

At the World's Fair last summer Mr. Disston by chance met Mr. A. Shulson, of Sioux City, Iowa, an intelligent Norwegian who had become somewhat disengaged at the agricultural conditions and prospects in that State, and was ready to make his home and try his fortune in a milder climate, where the enemies of the husbandman have not yet subdued and overcome him. Shulson was deeply interested in the Disston exhibit at Chicago—the sugar, syrup, rice, corn, cassava, potatoes, fruits, etc.—which had all been grown upon reclaimed land that was formerly from a foot to three feet under water during the greater part of the year.

The result was that he made a trip to south Florida and the Tohopekaliga region in midsummer in order to see the country at a disadvantage rather than at its best, and upon going back to his old Iowa home he easily persuaded ten families to invest in small properties near Kissimmee, on the line of the Sugar Belt Railroad leading to St. Cloud and Runnymede. They have all arrived and are already getting to work upon the land for early vegetable crops—cabbages, potatoes, turnips, cucumbers, onions, cassava, etc.—and many of them will set out peach and orange stock and go into the cultivation of sugar-cane as well.

"The second year from the planting," said Mr. Disston, "a peach tree in this section produces fruit fit for the market, and these peaches mature so much earlier in the year than the Georgia and the north Florida peaches that they command extremely high prices, and are in consequence a most profitable crop. These Scandinavians brought here by Mr. Shulson are a hardy, honest, thrifty class of people, and they appear to be particularly taken with peach-culture. One of the pioneer peach-growers in this section was Mr. Jack Lewis, of Maryland, and he is fast making a fortune in the business. He understands how to pack and market the fruit, and has agreed to buy on the trees the entire crops of these new Scandinavian settlers. So Mr. Shulson has gone West for other immigrants, and I am hopeful that within a year he will have a hundred new families here. They are a superior class of immigrants, and are just the kind of people to make the great drained area of the Okeechobee region blossom like the rose, and I should like to see a thousand such families settle here. I am quite of your opinion and that of the MANUFACTURERS' RECORD, that we must look to the great West for our Florida immigration."

THE Western Paper Bag Co., of Batavia, Ill., writes to the MANUFACTURERS' RECORD: "We organized in Memphis last week a company known as the Memphis Woodenware Manufacturing Co., and expect to employ about 200 hands as soon as our buildings are finished. They will consist of some four or five buildings, the main one to be about 40x160, two stories high. The next building will be 50x85, and the dry-rooms will be 90x15 feet."

AN important real-estate transaction was the sale of the Meyer Building in New Orleans for \$62,500 through Robinson & Underwood, of that city. The purchaser is said to be a Connecticut capitalist.

THAT KNOXVILLE PROTEST.

An Attempt to Throw Nova Scotia Coal dust Into the Eyes of the Kentucky and Tennessee Operators Falls to Work.

WASHINGTON BUREAU,
MANUFACTURERS' RECORD,
ROOM "E," RAPLEY BUILDING,
February 28.

The effort being made in various quarters to throw dust in the eyes of the people—not ordinary dust, but Nova Scotia coal dust—would be amusing were it not made serious by reason of its occasional success. The only “set speech” delivered at the convention of the Kentucky and Tennessee coal operators, held at Knoxville on February 20, was made up (as a Kentucky coal man expressed it) “of facts that were false and figures that were fictitious.” It was claimed by this solitary speaker in advocacy of free coal that United States coal operators should have no fear from competition in the New England or any other market with Nova Scotia coals, because, as he alleged, the cost of Cape Breton coal, run of mine, was \$1.80 a ton; Picton \$2.25, Spring Hill \$2.50, and that the cost of ocean freights from Nova Scotia to New England was on the average \$1.90 a ton! But this particular dust-thrower did not get in his work.

* * *

Fortunately there were present men who knew that these figures were utterly absurd—men who believed that they were promulgated with a view to delude the operators of the United States and to lull them into a mistaken sense of safety so that they would cease to say to themselves, “the price of liberty is eternal vigilance.” One of the operators present happened to be thoroughly posted on the cost of mining these Nova Scotia coals, and showed that the figures quoted were excessive by, on the average, at least \$1.00 a ton, and declared that he had recently interviewed the owner of twenty-five sailing vessels, who told him that he could make money hauling Nova Scotia coals to New England for less than thirty cents a ton. The same speaker went on to say that he had found during one visit to one of our south Atlantic ports no less than three cargoes of coals which had been brought over in ballast from Wales and sold, after paying the present duty, at a price with which the Southern operators could not compete. Another speaker refuted the claim that Nova Scotia coals were comparatively worthless by showing that some of them were in every respect equal to the coals of the Knoxville district. Mr. M. Erskine Miller’s comparative tables, showing cost of mining and marketing West Virginia and Nova Scotia coals, were also read and endorsed.

* * *

There were present at the meeting a number of gentlemen who made it clear that while free coal would close up many Southern mines, the people would not get their coal any cheaper, because universal experience warrants the conclusion that once the Dominion Coal Co. shall get possession of any desired market and drive out competition, it will raise prices to the highest figures that consumers can afford to pay.

* * *

While in Knoxville I talked with several wholesale merchants who had figured out the loss which they would experience from any curtailment of the wages of the 10,000 miners (upon whose labor 45,000 people rely for sustenance) employed by the coal operators who attended that convention, and it was evident that no Nova Scotia coal dust or any other kind of dust had been thrown into their eyes.

* * *

As so it turned out, in spite of the effort made to show that free coal would do the Kentucky and Tennessee operators no harm, that there was adopted a preamble

and resolution which was in effect a memorial to the senators of Kentucky and Tennessee to retain the tariff on coal, as well as a protest against “the destruction of an investment of at least \$10,000,000 and reducing our labor to the impoverished standard of that of foreign countries.”

* * *

And in this connection a word about the attempt made in six columns of the Wheeling (W. Va.) Register of February 21 to prove that free coal would not do the operators of that State any harm. The basis of the argument was the same set of figures that were employed to mislead the coal men of Kentucky and Tennessee. There will, however, be sent for publication in the next issue of the MANUFACTURERS' RECORD a reply to this article, which will be intensely interesting alike to coal operators and business men, both in the two Virginias and elsewhere. THOMAS P. GRASY.

The Issue of the Hour.

WASHINGTON BUREAU,
MANUFACTURERS' RECORD,
ROOM "E," RAPLEY BUILDING,
February 26.

All honor to the statesmen in the United States Senate who have within the last ten days come to be called “conservative” democrats. There never was a time when conservatism was so essential to the welfare of the people of the republic. There never was a time when recklessness in legislation could work so much disaster as right now. “It is a bad time to swap horses while crossing a stream.” It is a bad doctor who gives heroic doses to a patient already weak and sick unto death. This country is in no condition to stand a violent shock. So reason the “conservative” democrats of the Senate, and if perchance it be the purpose of a merciful and long-suffering Providence to rescue the democratic party from utter annihilation, these ten or twelve “conservatives” will be pointed to in gratitude as the chosen instruments of providential intervention.

* * *

It has come about that the political issue of the hour is one of business. At this time, when it is a question with nine people out of ten how to make a living, politics is a very different thing from politics during periods of prosperity. It had got to be believed that business interests and ordinary political questions had little in common; at least, the people of the South have not heretofore mixed up politics and business; but during the last two months, since the tariff question has been under discussion in Congress, those most interested in the result are not the old-time politicians, but the manufacturers and the merchants.

* * *

And thus, now that politics is a business question, it is impossible for even those industrial newspapers which claim to be strictly non-partisan to keep out of politics. In fact, I have noticed that even the technical publications of the country are filled with articles on the tariff.

* * *

At bottom the situation is really a non-political one, because a cabal of the party in power has departed entirely from that party’s political platform, and it is now only a question among democrats of interpretation of platform—a question of whether or not the material interests of the country are to be sacrificed for the sake of making an experiment advocated by impractical theorists.

* * *

It is as if the managers of a bank which for years and years had been earning satisfactory dividends were to be urged to revolutionize their methods by a person without any experience in the banking business. Such a person would be laughed at.

* * *

It has been abundantly admitted by a large number of senators and representatives that the opinions of Southern business men should be considered in the formation

of a tariff bill, and it is a matter for congratulation that they are being considered. Now, the MANUFACTURERS' RECORD is a paper whose very excuse for existence is the advocacy of everything calculated to advance the prosperity of that section of the Union commonly called the South. Were it to keep silent at a time when a cabal in the dominant political party of the nation is proposing legislation to retard rather than to promote the South’s development, such silence would be a departure from the policy which has made this paper the universally-recognized exponent of Southern needs and conditions. By failing to protest against any menace to Southern progress the paper would forfeit its right to be considered the South’s most powerful and fearless friend and ally.

* * *

Last week I went to Knoxville to hear what might be said at a convention (reported elsewhere in this issue) of the coal operators of Kentucky and Tennessee. Among the speakers was a gentleman who apparently represented the interests of the Dominion Coal Co.—an organization whose very *raison d'être* is to run Virginia and West Virginia coals out of the market with coals from Nova Scotia. I was struck by the contrast in the plans of campaign employed by this company. In the East, where its stock is on the market, we see publications, presumably paid for, showing what excellent coal the company has in its mines, which it will be ready to deliver in New England cheap for cash so soon as Congress shall give New England free coal. In the South we likewise see publications, presumably paid for, showing what vile, ashy, sulphurous stuff this Nova Scotia coal is; how expensive it is to mine, and how it can never do the Southern operators any possible harm.

* * *

The encouraging outlook for a revival of business is due to a rapidly-developing confidence in the conservatism of the United States Senate. Since the Wilson bill was passed this confidence has been steadily growing, and today, thanks to such senators as Gorman and Gibson, of Maryland; Brice, of Ohio; Hill and Murphy, of New York; Daniel and Hunton, of Virginia; Faulkner, of West Virginia; Smith, of New Jersey; Morgan and Pugh, of Alabama; Butler, of South Carolina, and Cafrey, of Louisiana, the country is breathing easier, assured, as it is, that no radical, wrenching tariff legislation will ever be enacted. It is even said that Senator Harris, of Tennessee, and Senator Blackburn, of Kentucky, are leaning to conservatism. These senators are now called “the conservatives,” to distinguish them from the radical free-traders. As a matter of fact, they represent the policy of their party as understood by the people when Mr. Cleveland was elected. They are acting upon Mr. Cleveland’s own advice, given in these words: “We cannot close our eyes to the fact that conditions have grown up among us which, in justice and fairness, call for discriminating care in the distribution of such duties and taxation as the emergencies of our government actually demand.”

* * *

The whole question is, therefore, in one sense political, but in another non-political. If all the leading democrats were united in favor of free trade, then the question would be strictly political; but inasmuch as there is so wide a divergence of opinion as to the interpretation of the tariff plank of the Chicago platform, it is a question for each individual senator to decide according to the lights before him with reference to the commercial and industrial needs of the State he may represent.

THOMAS P. GRASY.

THE Association of Building Inspectors and Commissioners of the United States will hold its meeting for 1895 in Baltimore.

ANOTHER Effect of the Wilson Bill.

It was recently reported that the Cummer Co. would build two new saw mills at a cost of about \$100,000—one in Florida and one in Louisiana—but in answer to an inquiry the company writes as follows:

NORFOLK, VA., February 26.

Editor Manufacturers' Record:

Replying to your enquiry of the 16th inst., would beg to state that you were correctly advised in regard to our timber holdings in Florida and Louisiana, but it is not true that we intend erecting mills for the manufacture of this timber during the present year, as we would consider it a very unwise move to undertake anything of this kind while the present condition of business prevails. We think you will agree with us that anyone who has kept at all posted about the Southern lumber business during the past two or three years must be aware of the fact that there has been very little if any margin of profit made by the manufacturers, and should the tariff be removed on Canadian lumber, as contemplated by the Wilson bill, our judgment is that it will be a long time before any fresh capital seeks an investment in the erection of new mills in the South. We have strong hopes, however, that when the Wilson bill comes before the Senate enough Southern senators will be found who are sufficiently posted in regard to the present condition of the lumber business in the South, and who realize full well the necessity of caring for and encouraging the development of so vast an industry, as will justify them in demanding that the present duty be retained on Canadian lumber, or otherwise cast their votes for the defeat of the Wilson bill.

THE CUMMER CO.

E. C. FOSBURGH, Secty. and Man.

A Mugwump's View.

ATLANTA, GA., February 24.

Editor Manufacturers' Record:

We receive and read the MANUFACTURERS' RECORD and appreciate the good resulting from the publication. I note a letter from J. E. Johnson, manager of an iron company, which greatly interests me. He has doubtless outlined correctly the best policy for Southern as well as for Northern manufacturers. This sentence in his letter is significant: “*Our only hope for peace is in the total defeat of the democratic party.*” (Italics mine.) Every man who holds that a legitimate function of the federal government is to bolster up his unprofitable industry by a tax excluding competition should vote with the party advocating such theory. Conversely, he who holds to the opposite principle that no government should place obstacles in the way of trade should align himself on the other side. The true issue is free trade or high protection. Just now we have two contending parties, high protection and lower protection, and the result is confusion. *Tariff tinkering is and must be always injurious;* hence I advocate the doing away of all tariffs, both protective and for revenue. As long as this artificial condition exists there will be panic and disaster. The “mugwump” alone holds the logical view, and he will decide the coming contest. Just now he is under the ban, wanted by neither party, but his day will surely come. McKinley has done much to compass for us free trade. If he and those who think with him will continue as now, we will do the rest—continue to press the button—and all will go well.

MUGWUMP.

SHADY SIDE plantation, near Franklin, La., has been purchased by Hon. Taylor Beattie for \$185,050. Shady Side is one of the finest sugar plantations in the State. It has under cultivation 2500 acres. Its yield for the past season was, in conjunction with cane purchased, over 6,000,000 pounds of sugar.

RAILROAD NEWS.

[A complete record of all new railroad building in the South will be found in the Construction Department, on page 79.]

A BIG RAILWAY CONTRACT.

Over 400 Miles of the Lake Superior, Southwestern & Gulf Road to be Built by One Company.

Secretary J. M. Miller, of the Lake Superior, Southwestern & Gulf Railway Co., informs the MANUFACTURERS' RECORD that a contract has been signed by his company with the Rosenfeld Construction Co., to build and equip that section of the road between Kansas City, Mo., and Little Rock, Ark. It is stated that 406 miles of road are to be completed under this contract. The Lake Superior, Southwestern & Gulf, as already stated in the MANUFACTURERS' RECORD, is intended to form a system from Duluth, Minn., at the head of Lake Superior, to some harbor on the Gulf of Mexico. Several lines now built and extending north and south are to form parts of the system. As to the capitalists back of the project, it is stated that the Pillsburys, the Minneapolis flour manufacturers; G. W. Cable and J. V. Farwell, of Chicago, and Russell Sage, of New York, are interested. It has also been intimated that the scheme was a move of the Goulds. In any event, considerable money has been spent in surveys, and there are many indications that the road is not a "paper" scheme.

President Rosenfeld, of the construction company, makes the following statement: "My construction company is composed of New York and Boston capitalists, headed by men who have an extensive experience in practical railroad building. Our contract with this road requires us to begin work August 1, but we will do better than that, and confidently expect to commence May 1. We will begin at the crossing of the St. Louis & San Francisco, probably near Marionville or Aurora, Mo., may be between them, just as the railroad company's engineers shall locate the line, and then work south to the White river. At the same time a large force will begin at Little Rock and work northward. We have already contracted for ties enough to tie the whole stretch. The line will cross the White river in the neighborhood of Galena, and a branch will be built to Harrison, Ark., and penetrate the rich mineral territory of northern Arkansas."

The stockholders of the Lake Superior, Southwestern & Gulf at the first annual meeting at Des Moines, Iowa, elected the following directors: E. R. Bristol, of Minneapolis, president; L. M. Martin, vice-president; S. L. Howard, of Des Moines; J. M. Miller, of Springfield, Mo.; M. B. Austin, St. Louis, and J. A. Hinsey, Chicago.

The B. & O.'s New Feeder.

The Baltimore & Ohio will be greatly benefited by the Fairmont, Morgantown & Pittsburgh division, which, as already stated in the MANUFACTURERS' RECORD, is practically completed and will soon be put in operation. The road was completed from Fairmont to Morgantown, W. Va., in 1886, and the same year the State Line road was completed from Uniontown, Pa., to Redstone Junction. The survey to connect the two roads was made in 1891, and the construction began the next year. Connection was made near Point Marion, where the Fairmont, Morgantown & Pittsburgh joins the Uniontown branch of the Pittsburgh & Connellsville Railroad. The new road extends through a rich coal and coke section to the valley of the Cheat river. It follows the river to a point opposite Point Marion, where it crosses the river and continues on the east side to Morgantown. The line is valuable to the

Baltimore & Ohio, which will operate it, for the reason that it gives an outlet for the Camden system of roads directly into Pittsburgh by a short line, and opens up a coal field which heretofore has been out of the reach of the market.

Good Earnings of Southern Roads.

The reports of the principal railway lines of America for the year ending December 31, 1893, as compiled by the Financial Chronicle, show that the Southern lines have not only held their own, but have been operated with better results than those in most of the other sections of the country. Taking the thirty-six roads in the Southern group, including Louisville & Nashville with its large decrease, and the net earnings are shown to be \$22,232,161 for 1893, a decrease of \$307,300, or 1.36 per cent., compared with 1892. In the New England group the decrease was 4.76, the coal roads 2.27, the Middle States 1.91, the Northwestern 5.32 and Pacific 12.89 per cent. The earnings in the middle Western group increased 4.39 per cent. over 1893, but this was chiefly due to the World's Fair business obtained by roads entering Chicago.

In the Southern group eighteen out of the thirty-six roads reported have a net gain for the year. The gross earnings of twelve increased over 1892, showing that a large sum was saved by rigid economy in operation. In the number of lines showing increase of over \$200,000 in net earnings during the year, the Southern lines are well represented as follows: Baltimore & Ohio, \$487,674; International & Great Northern, \$347,248; Chesapeake & Ohio, \$268,916; Mobile & Ohio, \$210,918. Only twelve roads are noted in this group. In the list of decreases of over \$200,000 forty-three roads are represented, of which but the Louisville & Nashville is a Southern road.

May Extend to Little Rock.

A dispatch from South McAlester, I. T., where the main office of the Choctaw Coal & Iron Co.'s road is located, states that a

Western syndicate has made a proposition to build ninety miles of a proposed extension of the line. The completed portion extends from South McAlester to Wister Junction, in Indian Territory. The idea of the projectors has been to complete to Denison, Texas, and Little Rock, Ark. As Edwin D. Chadick, one of the road's receivers, has been agitating a railroad scheme in Little Rock recently, it is believed this is the one contemplated. To reach Little Rock would require about 140 miles of new line. Congress has recently given the Choctaw Company an extension of time in which to complete its road, which is an outlet for the extensive coal mines in Indian Territory.

A Prosperous Southern Road.

The Georgia, Carolina & Northern is one of the Southern lines which surprises the Northern visitor who goes over it for the first time. There are few trunk lines in the country which are its superior in point of construction. The roadbed, which extends from Monroe, N. C., to Atlanta, Ga., is laid with heavy steel rails, is well blazed and bridges and culverts are all of mason work and iron. As a result very fast time is made, and the passenger service furnished is of the best. The management, like that of the other Seaboard Air Line roads, is composed of capable practical railroad men who see that every detail in operation and maintenance of way is carefully attended to.

A Large Order.

A dispatch from Mobile, Ala., announces that the Mobile & Ohio has been obliged to order 300 refrigerator cars built to meet the demands of its increasing freight busi-

A PROGRESSIVE RAILROAD.

MILLIONS BEING SPENT IN IMPROVEMENTS ON THE BALTIMORE & OHIO.

From time to time people gain a partial idea of the improvements being made along the line of the Baltimore & Ohio system through press dispatches, but few have any conception of the amount of money being expended or of the importance of the work. At the last annual meeting of the company the reports showed that over \$2,500,000 had been expended in betterments of way, etc., about \$900,000 more than the previous year. This included reballasting 318 miles of road, the laying of nearly 12,000 tons of 85-pound steel rails, the construction of five miles of sewers and thirty-eight new bridges and culverts.

The policy of the present management of the Baltimore & Ohio is and has been since it assumed control to make the main line as good from a railroad standpoint as any in America. It is in effect being rebuilt from Philadelphia to the Ohio river, and though the extra expense reaches a very large amount, President Mayer and his associates believe that it is a paying investment. Wherever the line could be straightened, the grades reduced or the roadbed improved this has been done, and at a period when some other companies were reducing the amount spent for necessary repairs one-half on account of business depression. It is this principle of determination to be the best and to have the best that induced the Baltimore & Ohio to establish its Royal Blue line between New York and Washington—a passenger service which is equal to the finest in this country today in point of safety, comfort and speed, considering the fact that only ordinary rates of fare are charged. One of the most superbly-appointed trains in the world is the St. Louis, Cincinnati, Washington and Baltimore express, which runs solid between those cities over the main line of the Baltimore & Ohio and its newly-acquired Western connections.

Among the important enterprises which the Baltimore & Ohio is now completing is the Belt railway tunnel at Baltimore, by which it will have an all-rail entrance to the city from the north and south and up-town and down-town passenger stations, avoiding the transfer across the Patapsco river and its attendant delay. There are nearly two miles of actual tunnel work, besides several miles of cuts and fills. At Harper's Ferry, W. Va., the present route, which is very circuitous, will be shortened considerably by the tunnel nearly one-half mile long which has been made through solid rock near the new bridge which the company is building across the Potomac. The work here, including the tunnel, bridge and several miles of new track, will be very costly. On the Washington-Baltimore division a "bend" of several miles is to be avoided by a cut-off track, which requires extensive embankment work. The cut-off will allow the time between Washington and the East to be reduced considerably from the present schedule.

The three improvements alone will cost complete over \$5,000,000, saying nothing of other work now under way. As the MANUFACTURERS' RECORD has already stated, they show the liberal and enterprising spirit of the present controlling officers, with the result that the attention of railroad financiers both in this country and abroad has been attracted to the great scope and benefit of the several projects.

The Pennsylvania Must Build It.

The appropriation for building the railroad proposed from Elkton to Massey's station, on the Eastern Shore of Maryland, is to be given to the Pennsylvania Company, provided that corporation completes the line within two years and begins con-

struction within ninety days. This step has been taken by the Maryland legislature. The route is the same that the Elkton & Southern Company, recently formed, decided to follow in building its line.

The Portsmouth Terminal Line.

In a recent issue the MANUFACTURERS' RECORD announced the formation of the United States Cotton Warehouse & Loan Co. by Philadelphia and Norfolk capitalists. This company, it appears, is to construct the line of railway by which the Norfolk & Western road is to enter Portsmouth, and apparently is an adjunct of that road. In a letter to the MANUFACTURERS' RECORD a prominent official of the warehouse company writes that the road will run through the land of the Portsmouth Company, which controls a frontage on deep water of three miles, and is especially adapted for factory sites. "Several large manufacturing companies in the North and West," says the writer, "contemplate locating on this property."

The United States Cotton Warehouse & Loan Co. intends to erect extensive warehouses and docks in this locality.

A Railroad Reorganized.

The Augusta Southern Railway has been reorganized by the security holders, who have decided to issue \$400,000 in new stock and \$60,000 in 7 per cent. preference bonds. Of the latter \$25,000 will be used to pay the loans made by the Central Trust Co. of New York for that amount, while \$22,500 and \$31,000 in stock is to be paid for the Sandersville & Tennville, a line four miles long extending between the points named, which the Augusta Southern has purchased. An issue of \$350,000 in mortgage bonds is to be also made, bearing 2 per cent. interest the first year, 3 per cent. the second and 5 per cent. the third. These will be distributed pro rata to the old mortgage bondholders. The Augusta Southern is a narrow-gage line eighty miles long, extending from Augusta to Sandersville, Ga. James U. Jackson is president.

An Important Link.

It is announced that the company building the Dry Fork Railroad in West Virginia intends to complete it to Covington, Va. The line begins at Hendricks, on the West Virginia Central, and is surveyed through the Cheat river valley. It is expected to complete it to Harmon, W. Va., within a few weeks. As the Chesapeake & Ohio passes through Covington, the new road would form a direct connection between the West Virginia Central and the Chesapeake & Ohio, thus furnishing another outlet to market for the coal, ore and timber of West Virginia. The Dry Fork traverses a heavily timbered country and will be used largely in hauling lumber

Charges of Rate-Cutting.

The Louisville & Nashville's withdrawal from the Southern Railway and Steamship Association threatens to dissolve that organization and cause a cut in freight rates. The reason for the step, as given by President Smith, of the Louisville & Nashville, is that other lines have been secretly cutting rates in violation of the interstate commerce law and contrary to direction of the courts, as the roads mentioned are now in the hands of receivers. The charges are very sweeping and sensational in their nature. The outcome of the matter will probably be an investigation by the interstate commerce commission or the Southern Railway and Steamship Association. In case any of the charges are proven to be true, the question will arise as to how far the receiver of an insolvent railway line can reduce rates and still obey the instructions of the court. The outcome of the difficulty will be awaited with interest by railroad men gen-

erally as throwing light on a new phase of the rate problem.

All Should Work for Immigration.

The question of immigration in Alabama is receiving much attention from the State papers, which heartily endorse the stand taken by the MANUFACTURERS' RECORD and *Southern States* magazine in helping the movement in every way. The Huntsville Mercury, in republishing an article upon immigration, thus comments: "The Alabama commissioner of agriculture tells us that there is lack of funds standing in the way of effort on his part to induce immigration, but that he desires to do what he can in that direction. Can we not look to the railroads for assistance in this matter? Some of the roads are taking active steps to bring the right sort of people into the country. Cannot the Memphis & Charleston and the Louisville & Nashville do the same for Alabama? Surely we have an inviting territory here. It would be profitable for the railroads to encourage this movement, and our people are ready to meet all comers half way."

Following this a Birmingham exchange says editorially:

"Birmingham wants the railroads to get down to business, and all work at it, thereby extending it over the entire State. Taking into consideration the statements of the decrease in earnings furnished by the Louisville & Nashville, in connection with their much greater mileage in Alabama over other roads, it looks as though they could profitably place before the public the resources of the country along their road in Alabama in the matter of fruit and truck-growing, sheep-grazing, tobacco culture, etc. It would give a more reliable and steadier traffic than they now have, and also aid to a reasonable extent in the matter of transportation of those vigorously engaged in the promotion of immigration. The distribution of their printed matter, etc., would also aid in the success of immigration. This would mean that others must follow suit, or lose the prestige with their patrons and the public."

"The action taken and interest shown by the members of the State Agricultural Society and Farmers' Institute in their annual meeting just closed here shows that it is necessary for immediate action to be taken by the railroads, the newspapers and the people in the matter of immigration to insure their favor."

Northern Central's Officers.

At the annual meeting of the Northern Central Railway Co., held at the general office in Baltimore, the following-named directors were elected: George B. Roberts, J. N. Hutchinson, B. F. Newcomer, John P. Green, H. Walters, Henry James, Louis W. Hall, E. B. Parsons, J. D. Cameron, Luther S. Bent, Henry D. Welsh, N. Parker Shortridge. The report for 1893 was approved. George B. Roberts was re-elected president, and resigned as a director, and A. J. Cassatt was elected a director to fill the vacancy. The following officers were re-elected: Frank Thomson, first vice-president; John P. Green, second vice-president; Charles E. Pugh, third vice-president; Stephen W. White, secretary; A. W. Hendrix, treasurer.

Suits Against Richmond & Danville.

Judge Goff, of the United States District Court, has granted an order requested by the petition of the Carnegie Steel Co., Limited, consolidating the suit of Wm. P. Clyde and others against the Richmond & Danville with the suit of the Central Trust Co. of New York against the Richmond & Danville Company, and has fixed Saturday, March 3, for the hearing of the decree for the foreclosure of the mortgage and sale of the railroad. This is understood to be merely another step in the terminal reorganization scheme.

Fast Time of a Fruit Train.

Some unusually fast records have been made recently by fruit trains running from Galveston, New Orleans and Mobile to Chicago and other Western points. The Illinois Central, however, claims to have broken all previous records between New Orleans and Chicago. An Illinois Central train, consisting of fifteen cars loaded with bananas, made the trip of 912 miles in thirty-five hours and fifty minutes. The average speed, including stops, was 25.45 miles per hour.

Want Another Railroad.

The citizens of Meridian, Miss., are enthusiastic over the project of building a railroad from Tuscaloosa, on the Tombigbee river, and at a recent meeting \$25,000 was pledged by those present towards the building fund. As already stated in the MANUFACTURERS' RECORD, the new line would connect Meridian with navigable water and tend to greatly increase its trade. Mr. W. H. Hardy, of Meridian, is interested in the matter.

A New Railway Scheme.

A dispatch from Middlesborough, Ky., states that the scheme to give that section a seaboard outlet at Port Royal, S. C., has been revived, and that Clarence Cary, receiver of the Knoxville, Cumberland Gap & Louisville road, is interested in it. The connection if made would be by way of the Knoxville, Cumberland Gap & Louisville, the Port Royal & Augusta and some other line yet to be determined.

Railroad Notes.

THE Pennsylvania Railroad has arranged to build a large market-house at Jersey City for the delivery of perishable freights and expects beginning about April 1 to deliver to consignees at that point all perishable freight consigned to New York, Brooklyn or Jersey City. This will be of special advantage to Southern truck-growers whose shipments reach New York by the Pennsylvania.

C. C. McCAIN, of the interstate commerce commission, has prepared a compendium of essays on the subject of transportation by various authorities. The book includes discussions on the problem of freight rates, treatment of employees, etc. It is issued by the Kensington Publishing Co. at Washington.

THE date for selling the Chattanooga Southern road by foreclosure proceedings has been changed to June 20 by order of the court. This is caused by the fact that the business of the company is steadily improving.

THE stockholders of the Mobile & Ohio have elected the following board of directors, which is the same as last year: James C. Clarke, H. B. Plant, A. H. Stevens, Sidney Shepard, Thomas W. Jevons, J. H. Fay, Adrian Iselin, Jr., F. D. Tappen, C. C. Cuyler, E. S. Knapp, E. L. Russell, James H. Masson, W. Butler Duncan. The annual election for officers will take place in New York on March 26.

A. A. HEARD has been appointed assistant general passenger agent of the Missouri Pacific and Iron Mountain railroads, vice B. Howard Payne, who has resigned to accept the position of assistant general passenger agent of Union Pacific system.

H. W. B. GLOVER has been appointed general freight agent, and T. J. Anderson, general passenger agent, of the Seaboard Air Line, with headquarters at Portsmouth, Va. W. L. O'Dwyer has been appointed division freight and passenger agent at Atlanta, Ga.

GEORGE E. FISHER, of Richmond, has purchased the Richmond & Seven Pines Railway, a suburban line, for \$49,250. The purchase was made at foreclosure sale. The road is seven miles long.

FINANCIAL NEWS.

FAVOR NEW BANKING LAWS.

The Board of Trade of Roanoke, Va., has put itself on record as to adoption of banking laws by the following resolutions:

"Resolved, That Congress should, at its present session, pass such laws as will permit the national banks to issue currency to the amount of the par value of the bonds deposited by them with the comptroller.

"That the general banking law should be so amended as to allow State banks to issue currency under proper restrictions for securing redemption of the same."

Memphis Bonds in Demand.

Taxing district or city bonds at Memphis, Tenn., have been advancing, and none are on the market for sale, so it is reported. They are considerably above par and are wanted, or, at least, buyers can be found readily at full quotations. The same may be said of county bonds. They are 6 per cent. steadily, without deviation, which is a great deal better than is done by many investments. City and county bonds are about the only local items of investment that appear to have stood firm against the efforts of bears to depreciate their value.

New Financial Institutions.

The German-American Bank has been organized at Stuttgart, Ark., with \$25,000 capital. R. W. Pearson is president, and John W. Underwood, cashier.

The Hanover Building & Loan Association has been organized at Wilmington, N. C., with W. E. Worth, president, and S. Bear, vice-president.

Business men of De Land, Fla., are taking steps to organize another bank in that city.

The Charlestown (W. Va.) Building & Loan Co. has been chartered with \$1,000,000 capital.

It is reported that a new bank is to be established in Kuttawa, Ky., by local merchants.

The comptroller has granted an application to organize the National Bank of Brunswick, Ga., by W. E. Kay, of Brunswick.

New Bond and Stock Issues.

The city of Aiken, S. C., is preparing to issue bonds for water works. Address D. S. Henderson.

Messrs. Spitzer & Co., of Cleveland, Ohio, have purchased \$95,000 worth of Tennessee & Pacific refunding bonds at par. The bonds bear interest at 5 per cent., and were issued at Nashville.

Mayor McDonald, of Austin, Texas, announces that he has sold \$150,000 worth of the city water-works and electric-light bonds.

Local capitalists have taken \$65,000 of the \$100,000 preferred stock recently issued by the Lynchburg Cotton Mills.

The State of Texas has authorized the Rio Grande Northern Railroad Co. to issue \$400,000 in bonds to build its road to the San Carlos coal fields, a distance of twenty-six miles. The San Carlos Coal Co., 116 Fourth street, Pittsburg, Pa., can give information.

Interest and Dividends.

The Logan County Bank of Russellville, Ky., has declared a dividend of 5 per cent.

The Langley Manufacturing Co., of Augusta, Ga., has declared a semi-annual dividend of 3 per cent.

The Louisville Savings & Loan Co. has declared a dividend of 5 per cent. on its A and C stock series and 3 per cent. on B stock for the last six months.

The Standard National Loan Association at Louisville, Ky., has declared an annual dividend of 15 per cent.

The Hope Mining Co., of St. Louis, has

declared a dividend of twenty-five cents per share to stockholders.

The First National Bank of Buena Vista, Va., has declared a dividend of 3 per cent.

Failures and Suspensions.

J. E. Allemon has been appointed temporary receiver of the Salem (Va.) Machine Works. This step is caused by dissensions among the stockholders, it is said, not by any actual business trouble.

The Florence (Ala.) Land, Mining & Manufacturing Co. has made an assignment to W. J. Wood.

D. H. Regan, dry-goods merchant at Victoria, Texas, has made an assignment, with assets of \$70,000 and liabilities \$50,000.

The Montgomery Mill & Lumber Co., of Montgomery, Ala., has been placed by the court in the hands of S. T. Swinford, receiver. The liabilities are estimated at \$50,000.

Frank T. Glasgow, of Lexington, and J. L. Bumgartner, of Staunton, have been appointed receivers of the Rockbridge Development Co.

A dispatch from Waco, Texas, states that the Waco Electric Railway & Light Co. has been placed in the hands of a receiver. Assets, \$300,000; liabilities, \$200,000.

Financial Notes.

THE Craighead County Bank and Bank of Jonesboro, Ark., have been consolidated, the Bank of Jonesboro increasing its capital stock and giving its name to the new institution.

A DISPATCH from Louisville, Ky., states that the Second, Fourth, Kentucky and Merchants' National banks in that city will be included in the proposed consolidation. The new bank is to be called the American National and is to have \$1,000,000 capital.

Success of a Southern-Built Engine.

The compound locomotive built for the Cleveland, Cincinnati, Chicago & St. Louis by the Richmond (Va.) Locomotive Works continues to attract much attention from engineers and locomotive builders. The engine has been recently put to some severe tests in Illinois, which were entirely successful in their results. The engine took thirty-nine cars with 1287 tons from Champaign to Kankakee, seventy-eight miles, in three hours and forty-five minutes, going over the maximum grade of twenty-nine feet at a speed of thirty miles an hour. From Kankakee to Chicago, forty-eight loads with a tonnage of 1660 tons, 220 tons more than the maximum train on the Illinois Central for a 19-inch cylinder engine, were taken with ease. The grades on the division were one twenty-five feet to the mile and four miles long, and another twenty-two feet, three and a-half miles long. The party of experts who conducted the tests praise the locomotive highly.

DURING the cotton season of 1892-93, while the Port Royal & Augusta road was under the control of the Georgia Central, it handled 55,000 bales of cotton, while from September 1, 1893, to the 14th ult., under Receiver Averill's management, it handled 109,931 bales, of which 60,977 bales went to Port Royal. Thus Port Royal has in five and a-half months of the Averill receivership received 6000 bales more than were handled by the line for the entire year preceding, and the line has doubled its cotton business in the same time.

THE Richmond & Danville has established a Florida agency with headquarters in Jacksonville. W. W. Davies has been appointed general Florida agent, with W. L. Jones and E. B. Wells, traveling passenger agents.

C. L. BRUNNER has been appointed trainmaster of the main line of the Georgia Central system.

SOUTHERN TEXTILE INTERESTS.

[A complete record of new textile enterprises in the South will be found in the Construction Department, on pages 77 and 78.]

COTTON IN SIGHT.

Including Movement in Three Years from September 1 to February 23, Inclusive.

From official report New Orleans Cotton Exchange

	This Year.	Last Year.	Year Before.
Receipts at ports since September 1.....	5,149,214	4,249,393	5,974,514
Overland to mills and Canada—net.....	610,579	692,482	980,849
Interior stocks in excess of Sept. 1.....	*277,111	314,059	455,285
Southern mills takings, less consumed at Southern ports included in port receipts.....	461,796	441,852	462,325
Total in sight.....	6,495,760	5,697,786	7,812,973
Per cent. of crop in sight.....	85.04	86.47	
Brought into sight after Feb. 23.....	1,002,579	1,222,406	
Total crop.....	6,700,359	9,035,379	
Per cent. of crop brought into sight after Feb. 23.....	14.96	13.53	

*Based on twenty-four leading interior towns reported to the exchanges, and also stocks at Houston, Texas, Griffin, West Point and Athens, Ga., and Meridian, Miss.

Above figures show movement to Northern mills according to system of counting all transit cotton between the ports as having gone to the mills.

SPINNERS' TAKINGS.

	This Year.	Last Year.
Total to Northern spinners from and via delivery points	478,701	657,897
Overland to mills as above.....	610,579	692,482
Total Northern spinners and Canada.....	1,089,280	1,350,379
Total Southern mills takings.....	478,580	463,360
Total American mills and Canada overland.....	1,567,860	1,813,739

SUPPLY AND DISTRIBUTION.

	This Year.	Last Year.
Supply—		
Amount brought into sight during 176 days of season; Stock at ports and twenty-nine principal interior towns left over from last crop.....	6,498,700	5,697,786
	309,956	532,951
Total supply dur'g 176 days	6,808,656	6,230,737
Distribution—		
Total exports for 176 days of season.....	3,974,064	3,032,503
Total domestic spinners' takings.....	1,567,860	1,813,739
Burnt.....	823	20
Total American stocks.....	1,205,909	1,384,475
Total distribution.....	6,808,656	6,230,737

Net overland for this week this year.....	3,544
Net overland for this week last year.....	20,651
Net overland for this week year before last.....	14,736
Net overland thus far for month this year.....	19,115
Net overland thus far for month last year.....	56,999
Net overland thus far for month year before last.....	79,719
Brought into sight this week.....	92,022
Brought into sight same seven days last year.....	104,162
Brought into sight same seven days year before last.....	142,043
Brought into sight twenty-three days of February this year.....	304,051
Brought into sight twenty-three days of February last year.....	341,739
Brought into sight twenty-three days of February year before last.....	604,548
Northern spinners' takings this week.....	5,179
Northern spinners' takings same seven days last year.....	38,831
Increase in amount of crop brought into sight to date over last year.....	500,914
Decrease in amount of crop brought into sight to date under year before last.....	1,314,273
Increase in supply since September 1 over last year.....	577,919
Increase in foreign exports since September 1 last year.....	941,561
Decrease in American spinners' takings since September 1 under last year.....	245,879
Decrease in American stocks under last year.....	118,566

A Prosperous Company.

The annual meeting of the stockholders of the Langley Manufacturing Co. was held at Augusta, Ga., on February 21. The directors declared a semi-annual dividend of 3 per cent. Mr. Thomas Barrett, of Augusta, was re-elected president; James

+including net plus correction 10,019 interior towns, stocks.

Texas Cotton Crop.

A dispatch from Austin, Texas, says: "The most careful estimates make the Texas cotton crop for the season of 1893-94 a quarter of a million bales less than the yield of 1892-93. Taking the reports of such railroads as have given their cotton figures, and estimating the balance in proportion, the decrease for those that are known, the total estimated decrease of the season from that of 1892-93 is put down by good judges with the actual figures before them at 13 per cent., making the estimate for the Texas crop now being marketed 1,750,000 bales."

"The drouth and low prices, according to the Texas agricultural department, are responsible for this decreased production."

"The decrease in production, as compared with 1891, is fully as pronounced. In that year the farmers of Texas, who rely upon cotton for their ready cash money, planted 4,523,010 acres and made 2,026,000 bales, valued at a little less than \$70,000,000 at the then prices, the average yield throughout the State being a fraction over half a bale per acre. This year the estimated value of the crop is not much over \$50,000,000, a loss of \$20,000,000. It is believed that Texas will plant even less cotton this year than last, and raise more corn and hogs, having profited by the past."

New Mill Company in South Carolina.

A charter has been issued to the Mill Ford Mill Co., of Fort Mill, S. C., with J. M. Spratt, P. K. Mull, J. W. Andrey, R. A. Culp, W. A. Watson, David Trainer and Clarence P. Culp as incorporators. The purpose of the company is stated to be the manufacture of cotton goods, and its capital stock is placed at \$140,000. Shares are valued at \$100 each, and can be purchased in semi-monthly instalments on twelve months' time. This new concern has purchased and will operate the Luna loom mill near Fort Mill.

Cedar Bluff's New Woolen Mill.

Messrs. Scott Bros., McGuire & Co. have completed a new woolen mill at Cedar Bluff, Va., and three carloads of machinery which arrived last week are now being placed in position. The equipment has been selected from the latest improved inventions, and the plant is arranged throughout with the best facilities for the manufacture of woolen goods. Operations will commence in about two weeks.

Notes.

MESSRS. GOODWIN & STEWART, of Norfolk, Va., who very lately contracted to build a knitting mill at Newport News, will commence work on same at once after plans prepared by Architect Marye. The building will be two stories high, 40x120 feet in size, and will be equipped with the latest improved machinery for the manufacture of ribbed underwear. It is expected that the plant will commence operations in May.

CONTRACT for the erection of the Portsmouth (Va.) Cotton Manufacturing Co.'s mill has been awarded, and the work will be pushed rapidly. At the next meeting of the company a Northern concern will submit a proposition to erect a knitting plant on the company's property to employ ninety hands and utilize the new mill's yarns for the manufacture of knit goods. It is to be hoped that the Portsmouth Company will complete arrangements for the acceptance of this offer.

THE MANUFACTURERS' RECORD recently reported the organization in Oldham, England, of the American Machine Co., composed of Messrs. Howard & Bullough, the great textile-machinery builders of England; Mr. C. E. Riley, of Boston, Mass., and Mr. James C. Potter, of Pawtucket, R. I. This company was organized to

build extensive machinery works in this country, and it is reported that they have now decided to locate their plant at Pawtucket, R. I. While the MANUFACTURERS' RECORD is glad to see this movement of textile-machinery builders to the United States, it regrets that, notwithstanding the rapid development of cotton manufacturing in the South, there is not a cotton-machinery establishment in all this section.

AT a meeting of the directors of the Riverside Mills, of Augusta, Ga., held last week, Wm. E. McCoy resigned as president in order to devote his time to other business. Mr. Geo. R. Stearns, superintendent of the mill, was elected president, and Mr. McCoy was made vice-president.

MR. W. F. DRAPER, Jr., of the firm of Geo. Draper & Sons, of Hopedale, Mass., in an interview in the Charlotte Observer said that his firm is making a new loom for plain goods which will be ready for the market in a short time. This new loom has improvements by which it may be operated almost absolutely without loss. There is no stopping to change shuttles, and the only stop is in the event of a broken thread. The loom works with one shuttle which has no spindle in it. There is a revolving cylinder which holds filled bobbins, and when the bobbin in the shuttle is emptied a filled one from the revolving cylinder takes its place, the old one being pressed out. If a filling thread breaks, then a new bobbin takes the place of the one on which the thread is broken. The bobbins have two small steel hands at one end, and they are clamped about these by a clamp which holds very much as the fingers of the hand would hold a bobbin by one end. These looms will sell for \$150 each, as against \$50.00 or \$60.00 for an ordinary loom. Mr. Draper says, however, that the increased amount of work will be so great that he will have no hesitation in guaranteeing an interest of 33 1/3 per cent. on the entire cost over and above what could be made with the ordinary common looms.

THE success in foreign countries of "the greatest improvement in cotton-spinning since Arkwright's time" is equally as marked as in America. Mr. Benjamin F. Nichols, formerly treasurer of the Metallic Drawing Roll Co., Indian Orchard, Mass., the American company, but now of the English and continental company, has recently completed a tour of a few of the leading cotton mills in Russia, and the MANUFACTURERS' RECORD learns that in one week he sold patent metallic rolls for over 600 deliveries of drawing to take the place of the old-fashioned leather-covered rolls in old frames. Most of the new machinery for foreign cotton mills is being ordered with the patent metallic roll. Among the orders secured by Mr. Nichols was one from the Kremholm Cotton Manufacturing Corporation, at Narva, about ninety miles from St. Petersburg, which is the largest cotton mill in the world. It has 450,000 spindles and runs twenty-four hours a day seven days in the week. The cotton-manufacturing industry is comparatively prosperous in Russia, all the well-managed mills being very profitable. They are mostly under the active management of competent Englishmen. The weather in Russia has been unprecedentedly mild.

THE Charlotte (N. C.) Observer says: "The Chester Manufacturing Co. is in the hands of a receiver. Some mighty good men have lost some good money in this enterprise. Chester lost an oil mill once in much the same way that the money for this cotton mill has slipped through the fingers of the stockholders. In the case of the oil mill, an adventurer came along and they turned their money into his hands and never saw it again. In the case of the cotton mill they undertook to build a gingham mill without ever having seen the inside of one, and their money went again. The reputable and responsible engineers

of the country, whose occupation is to build industrial enterprises and who are known to have the necessary knowledge and skill, have received scant welcome at Chester when a new enterprise was on foot." It would be well if every man in the South who expects to start a mill could see the force of what the *Observer* says. The man who tries to be his own lawyer or his own doctor is no more foolish than the man who tries to build a mill or open a mine without having expert advice and directing in planning and equipping. Hundreds of failures of Southern enterprises can be traced to the same cause as those at Chester.

THE government contract, noted last week as awarded to the Liberty Woolen Manufacturing Co., of Bedford City, Va., calls for 7000 broad yards of fine kerseys for the army headquarters at Philadelphia. The plant is at present running extra time on a contract for 25,000 yards which will keep it busy until April.

MESSRS. WOODWARD, BALDWIN & CO., of New York city, in a recent letter to the Gastonia (N. C.) Manufacturing Co., said: "You are making nice goods. No mills East make any handsomer 39-inch 68x72 cloth, and we have been told so by others who are posted."

WORK still progresses rapidly on the Dilling Manufacturing Co.'s new plant, near King's Mountain, N. C., which will be complete in a few months. It will be a model plant, consisting of a two-story brick building 81x191 feet in size. It is to be equipped for weaving fine fabrics. When completed it will run 5184 spindles and 250 looms.

THE erection of a cotton mill is proposed at Abbeville, S. C., and on February 22 a meeting was held by the citizens to further the project. A committee of ten was appointed to canvass for subscriptions, and it is thought that success will attend their efforts.

THE Enterprise Mills, at King's Mountain, N. C., are running day and night on warps, and contemplate putting in fifty additional looms in the near future. Mr. W. O. Ware is president of the company.

THE King's Mountain (N. C.) Manufacturing Co. is running full time, and has orders on warps for night and day run a month ahead at fair prices. Plain goods and yarn is the product. W. A. Manney, president.

A REPORT from Charlotte, N. C., says that a representative of the Otis Company, of Ware, Mass., was in Charlotte last month investigating for a cotton-mill site, as the New England company intends to build a large plant in the South. It is also said that the Massachusetts Cotton Mills, of Lowell, Mass., which last year increased its capital stock by \$1,200,000, will erect one or two mills in the South as soon as business improves enough to justify it.

THE Boyd Manufacturing Co. and the Hermitage Cotton Mills, at Reidsville, N. C., will both shut down their plants on account of the dullness in the bag and yarn market. Both concerns have a stock of goods on hand which they are unable to dispose of at remunerative prices, so will hold same for a rise in price.

THE stockholders of the Chewalla Cotton Mills, of Eufaula, Ala., held a called meeting on February 20. Four hundred and twenty-seven shares out of 500 were represented, and the following directors were elected: J. P. Fay, E. B. Young, J. L. Pitts, H. Schloss, G. H. Dent, G. S. Comer and R. A. Ballowe.

AN informal meeting of parties interested in the proposed cotton mill at Lockhart Shoals, S. C., on Broad river, was held at Spartanburg last week. Capt. J. H. Montgomery, of Spartanburg, and Col. C. D. Farrar were present in the interest of Southern stockholders, and Mr. Stephen

Greene, of Boston, represented Eastern parties. Mr. John C. Cary, of Seneca, S. C., who was also present, was elected treasurer and general manager. This move seems to indicate that the enterprise will be taken up and work on the new mill pushed right along.

The stockholders of the Mooresville, (N. C.) Cotton Mill Co. held an adjourned meeting last week, and decided to increase the capital stock \$10,000, enlarge its building and put in additional looms. The improvements will be arranged for shortly.

THE Crowder's Mountain Cotton Mill, of King's Mountain, N. C., is progressing with the work on its plant, and will put on a full force of operatives about April 1. When completed the plant will have 300 looms and employ seventy-five hands.

THE Patterson Manufacturing Co.'s new mill, just completed at China Grove, N. C., has been equipped with the necessary outfit for pumping water by electricity, and is said to be the first cotton mill using electric-power for this purpose. The cost per thousand gallons is said to be one cent.

The Views of a Textile-Machinery Manufacturer.

Among the leading textile-machinery houses of New England is that of George Draper & Sons, of Hopedale, Mass. Mr. W. F. Draper, Jr., a member of that firm, has recently been traveling through the South, and, in discussing the tariff and its relation to the South, said to a reporter of the Charlotte *Observer*:

It seems to me that the question of protection is one which affects the South and its interests even more than the North. In the North we have established industries which may be more or less affected by tariff changes, but the South has just started on a new era of industrial development. It has made a grand start in building cotton factories, large plants for manufacturing iron and steel, and there is a constantly increasing output of coal. Diversified industries, planing mills, furniture factories, etc., have been started and are running successfully. No one questions the fact that manufacturing industries are a benefit to the town and State in which they are situated, and if these industries already started are to be successful and more are to follow, adding to the wealth of this section, how important it is that they should receive sufficient protection to equalize the difference in labor cost between this and other countries. How much more important to the South is the protection to its industries, inasmuch as they are to a certain extent infant industries, and they are more likely to be injured by adverse legislation on that account. Protection was formerly advocated in this section, and Henry Clay, one of our noblest statesmen, was imbued with its principles. Our country as a whole, North and South, East and West, whether democratic or republican, should adopt the policy which makes our nation rich, our labor the best paid in the world and keeps our home market the best in the world for the American people. I have kept in touch with the people of the South, having made many trips through this section, both for pleasure and on various kinds of business, and am pleased to note the gain the protective sentiment has made in the last few years, and hope that future legislation in favor of protection will have the hearty support of the South, and that North and South will be united on that principle which I believe to be for the best interests of both.

A New Bay Steamer.

A dispatch from Philadelphia states that the Neafie & Levy Shipbuilding Co., of that city, has contracted to build a passenger steamboat to ply between Baltimore and Washington. Captain Lewis, the representative of the Washington Steamboat Co., has signed the contract for the vessel's construction. The new steamer, unlike other inland craft, will be built of steel. She will be 180 feet long, forty feet beam and twelve feet depth of hold.

AT the annual meeting of the Louisville Railway Co. J. B. Speed was re-elected president; St. John Boyle, vice-president, T. J. Mindry, general manager, and R. A. Watts, secretary and treasurer. The company controls ninety miles of electric road and fifty-five operated by animal power.

COTTONSEED OIL.

This department is open for the full and free discussion of trade topics and practical questions, and contributions are invited from men who are identified with this industry. Items of news are always acceptable.

The Markets for Cottonseed Products.

ROTTERDAM, February 10.

The market for cottonseed oil and all grease articles has been very dull during the past week, and prices have declined several guilders per 100 kilos. The weather in our country is mild and wet, therefore the butterine manufacturers cannot mix large quantities of oil. For many years we have not had such a short winter. It has frozen only a very few days. The demand for butterine is most inactive, while the arrivals of cotton oil from America, England and other countries are most important. The consequence is that the butterine manufacturers are not inclined to purchase oil, because they cannot mix much, and cannot sell large quantities of butterine unless they can have the oil at very low prices. The importers of oil are therefore obliged to give the goods at the very low prices offered, or to store them in warehouses. The decline in prices of cottonseed oil may also be attributed to the fact that the quality of the article is not satisfactory. Among the several parcels of cottonseed oil which arrived from America the parcels of strictly choice quality were very scarce. The color of this year's oil is bad. The butterine made from oleo oil and cottonseed oil has a bad gray color. The prices of other kinds of oil are very cheap this season and the quality is excellent.

Among the leading textile-machinery houses of New England is that of George Draper & Sons, of Hopedale, Mass. Mr. W. F. Draper, Jr., a member of that firm, has recently been traveling through the South, and, in discussing the tariff and its relation to the South, said to a reporter of the Charlotte *Observer*:

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G. W. SANCHEZ.

Kentucky Coal for Chicago.

MR. B. R. Hutchcraft, general manager of the Jellico & Bird's-Eye Coal Co., of Halsey, Ky., has so thoroughly converted Chicago people to the superior quality of Bird's-Eye coal that he has decided to resign his position as manager and has already arranged to open an office in Chicago for the exclusive sale of this coal.

MR. R. Lee France, of Chicago, and Mr. John W. Pruett, formerly cashier of the Frankfort (Ky.) National Bank, will be associated with Mr. Hutchcraft in this enterprise. Mr. Hutchcraft has been closely identified with the development of the Jellico district since it was first opened up some years ago, and during all that time has been working to push this coal into the Western markets. As he has now succeeded in getting a freight rate which will enable him to carry out this idea, it

will be interesting to watch the movement of Kentucky coal into the West and Northwest. In a letter to the MANUFACTURERS' RECORD Mr. Hutchcraft says: "The first trainload to Chicago will go out next week, and after that we will have daily trains for that point." The widening market that is being created in all directions for Southern products is demonstrating the possibilities of Southern industrial development.

Iron Markets.

CINCINNATI, February 24.

The events in the iron market during the week have been scarcely worthy of extended remark. Transactions, while numerous, have been for small lots, immediate delivery, and at bottom prices. The melters of iron still maintain that there is nothing in sight warranting any purchases of material beyond what is needed for immediate business. It is evident that work is being held back on all hands because of the uncertainty as to tariff legislation. The opponents of the Wilson bill have taken fresh courage from the results of the Pennsylvania election, which show unmistakably that the drift of sentiment in the country is radically against important changes in the present tariff. The confusion and hesitation shown at Washington since that election have given ground for hope that the bill will be either defeated in the Senate on direct passage, or very materially modified.

Financially, conditions continue favorable. A good many concerns which have formerly bought on time are now paying cash, the reduction in their business operating to produce the amount of money needed. Failures are surprisingly few. Most manufacturers have reduced expenses greatly, and prepared themselves for a long siege, if necessary.

We quote for cash f. o. b. Cincinnati:

Southern coke No. 1 foundry.....	\$11 50@ \$11 75
Southern coke No. 2 fdry. and No. 1 soft.....	10 50@ 10 75
Hanging Rock coke No. 1.....	13 00@ 13 25
Hanging Rock charcoal No. 1.....	17 00@ 17 50
Tennessee charcoal No. 1.....	14 00@ 14 50
Jackson county stone coal No. 1.....	14 50@ 14 75
Southern coke, gray forge.....	9 50@ 9 75
Southern coke, mottled.....	9 25@ 9 50
Standard Alabama car-wheel.....	16 75@ 17 50
Tennessee car-wheel.....	16 50@ 16 50
Lake Superior car-wheel.....	16 50@ 17 00

We quote for cash delivered Boston:

Alabama No. 1 foundry.....	\$13 75@ \$14 25
Alabama No. 2 fdry. and No. 1 soft.....	12 75@ 13 25
Alabama No. 3 fdry. and No. 2 soft.....	12 25@ 12 75
Alabama No. C. C. car-wheel.....	19 00@ 19 50
Strong L. S. coke iron No. 1 foundry.....	15 50@ 16 00
Lake Superior charcoal car-wheel.....	18 00@ 18 50
American-Scotch (Northern) No. 1.....	15 50@ 16 00

We quote for cash f. o. b. Philadelphia docks:

Standard Alabama No. 1 X.....	\$13 00@ \$13 25
Standard Alabama No. 2 X.....	12 00@ 12 25
Strong lake ore coke iron No. 1 X.....	14 75@ 15 00
Strong lake ore coke iron No. 2 X.....	13 75@ 14 00
Lake Superior charcoal.....	17 00@ 17 25
Standard Alabama C. C. C. W.....	18 50@ 19 00

ST. LOUIS, February 24.

The past week's sales of pig iron in the aggregate have been in excess of the previous week. One local stove manufacturer placed an order for 2000 tons Southern coke iron covering six months' deliveries at an exceedingly low figure, much less than the ruling market. Small orders, ranging from carload shipments to 300 tons, were numerous. There is still very little doing in foundry trade, and most buyers are placing only carload orders on account of the uncertainty of the market.

We quote for cash f. o. b. St. Louis:

Southern coke No. 1.....	\$11 75@ \$12 00
Southern coke No. 2.....	10 50@ 11 00
Southern coke No. 3.....	10 50@ 10 75
Southern gray forge.....	10 00@ 10 25
Southern charcoal No. 1.....	15 50@ 16 00
Missouri charcoal No. 1.....	13 00@ 13 50
Ohio softener.....	16 00@ 16 50
Lake Superior car-wheel.....	17 00@ 17 50
Southern car-wheel.....	17 00@ 17 50
Frick's Connellsville foundry coke.....	4 50

We quote f. o. b. cars Buffalo:

No. 1 X foundry strong coke iron.....	\$11 75@ \$12 00
No. 2 X foundry strong coke iron.....	10 50@ 11 00
Lake Superior ore.....	—@ 12 25
No. 1 X foundry.....	—@ 12 25
Ohio strong softener No. 1.....	—@ 12 75
Jackson county silvery No. 1.....	15 50@ 17 30
Lake Superior charcoal.....	—@ 14 75
Tennessee charcoal No. 1.....	—@ 15 50
Southern soft No. 1.....	15 00@ 15 50
Alabama car-wheel.....	16 50@ 17 50
Hanging Rock charcoal.....	18 50@ 20 00

We quote f. o. b. Chicago:

Southern coke No. 1 soft & No. 2 fdy.....	\$11 65@ \$11 90
Southern coke No. 2 soft & No. 3 fdy.....	11 40@ 11 65
Ohio Scotch softeners No. 1.....	15 00@ 15 50
Lake Superior charcoal Nos. 1 to 6.....	15 50@ 16 00

We quote for cash f. o. b. New York:

No. 1 foundry lake ore coke iron.....	\$15 00@ \$15 50
No. 2 foundry lake ore coke iron.....	14 50@ 15 00
No. 1 American-Scotch.....	15 00@ 15 50
No. 2 American-Scotch.....	14 00@ 14 50
No. 1 standard Southern.....	13 00@ 13 25
No. 2 standard Southern.....	12 00@ 12 25
No. 3 standard Southern.....	11 50@ 11 75
No. 1 standard Southern soft.....	12 50@ 12 75
No. 2 standard Southern soft.....	12 25@ 12 50
Standard Southern car-wheel.....	18 50@ 19 00

ROGERS, BROWN & CO.

LUMBER.

[A complete record of new mills and building operations in the South will be found in the Construction Department, on pages 77 and 78.]

Lumber Directory.

Readers of the MANUFACTURERS' RECORD who may be in the market for lumber of any description are recommended to the directory of Southern lumber manufacturers and dealers which appears among the advertising pages.

Southern Lumber Manufacturers' Association.

The annual meeting of the Southern Lumber Manufacturers' Association was held in Memphis on the 21st and 22d ults. The first day's session met in the ordinary of the Gayoso Hotel at 11 A. M., there being present representatives of the leading lumber firms of Arkansas, Missouri, Texas, Louisiana, Mississippi, Alabama, Georgia and Florida. There were over 100 members present when President Freeman began his address. He congratulated the association that in all the financial troubles not one member of the body had succumbed to hard times. He urged the members to continue the organization, and suggested changes of methods. Changes were recommended to make provision for a membership whose aim should first be to provide for themselves, that they may better provide for the association, and that \$5000 be raised at the first of the year for the expenses of the association. He thought the secretary should be the adjuster of all complaints, the arbitrator of disputes between railroad and shipper, and to also collect accounts due shippers still unpaid. The president's address was replete with valuable suggestions for the good of the association, and in closing he thanked the members for their consideration shown during his term of office. Secretary Smith submitted his report, showing the volume of business done among yellow-pine manufacturers during 1893. The following table shows the result of his inquiries among various dealers in the several States represented:

State.	Total cut 1893.	Shipped inland.	Exported.	Dressed lumber on hand Jan. 1, 1894.	Rough lumber on hand Jan. 1, 1894.
Arkansas.....	378,509,020	345,638,594	—	15,749,982	117,692,632
Missouri.....	97,952,440	86,243,351	—	2,796,338	31,590,060
Texas.....	254,691,941	275,396,352	—	3,326,674	64,121,628
Louisiana.....	145,091,309	134,652,420	—	3,460,950	40,177,365
Mississippi.....	98,303,339	110,534,942	1,400,000	11,093,000	22,139,531
Alabama.....	119,452,758	71,597,190	40,700,000	3,980,000	15,507,472
Georgia.....	86,827,226	71,181,100	12,950,000	1,709,000	4,775,217
Florida.....	130,014,475	34,770,000	97,000,000	150,000	28,950,000
Total.....	1,310,702,508	1,130,313,979	152,130,000	42,265,944	324,954,205

The secretary's report contained some valuable statistical information gathered during the year in reference to the lumber industry, and abounded in valuable suggestions for the welfare and improvement of the association. A list of committees was announced by President Freeman, when an adjournment was taken until 3 P. M. The work of the afternoon session was brief, and at 4 P. M. the association went into executive session. The association was called to order on the 22d ult. by President Smith, and the morning session was spent in hearing reports of committees. At the afternoon session the unfinished report of the committee on grades was taken up, when Mr. Willis offered a motion postponing the consideration on the report of grades to the next meeting. The resolution was carried. The report of the committee on nominations recommended the re-election of Mr. Freeman for president, which he declined, and in lieu thereof Mr. C. W. Goodlander, who was unanimously elected. The officers as announced are as follows: President, C. W. Goodlander, Fort Scott, Kas.; first vice-president, J. J. White; treasurer, J. R. Best. Vice-presidents—Mississippi, George S. Gardner; Arkansas, S. A. Strauss; Alabama, W. W. Wadsworth;

Texas, A. L. Clark; Missouri, R. N. Long; Louisiana, W. E. Ramsey; Florida, E. F. Skinner. Directors—Mississippi, J. C. Enoch; Arkansas, A. J. Niemeyer and P. G. Gates; Alabama, W. W. Smith; Texas, J. W. Amerson; Missouri, L. Werner and J. B. White; Louisiana, George S. Lacy and George Lock; Florida, A. M. McMillan.

LUMBER MARKET REVIEWS.

Baltimore.

OFFICE MANUFACTURERS' RECORD, BALTIMORE, March 1.

The conditions surrounding the local lumber industry are similar to those existing a week ago. The volume of business continues light and the demand is only to supply immediate wants. In the yellow-pine business the feeling is of a hopeful character and manufacturers look for a better trade later on. The demand from retailers this week has been fair at the prices ruling in the general market. Receipts of air-dried yellow pine continue light and stocks on hand are ample for all present requirements. The hardwood market continues about the same, with some demand from out-of-town buyers and a light city trade. Planing mills are, as a rule, not doing much and report orders as scarce, with values so low as to leave narrow margin of profit. Box manufacturers are also doing very little at present, their busy season not commencing for several weeks to come. There is very little doing in the shingle business, while prices continue steady and stocks sufficient for the present demand.

The following table represents the prices current at this date:

[The quotations for yellow pine are for cargo lots, and for all hardwoods the figures indicate values for choice car lots.]

VIRGINIA AND NORTH CAROLINA PINE.	
5-4X10 No. 2, kiln dried.....	\$15 00@ 17 00
5-4X12 No. 2, " "	17 00@ 18 00
4-4X10 No. 1, " "	19 75@ —
4-4X12 No. 1, " "	20 75@ —
4-4 narrow edge, No. 1, kiln dried.....	16 00@ 17 00
4-4 wide edge, " " "	21 75@ —
6-4X8, 10 and 12, " " "	20 00@ 22 00
4-4 No. 1 edge flooring, air dried.....	14 00@ 15 50
4-4 No. 2 edge flooring, " "	12 50@ 13 50
4-4 No. 1 12-inch stock, " "	14 00@ 16 00
4-4 No. 2 " "	12 50@ 13 50
4-4 edge box or rough wide	8 50@ 9 50

WHITE PINE.	
1st and 2d clear, 4-4, 5-4, 6-4 and 8-4.....	48 00@ 51 00
3d clear, 4-4, 5-4, 6-4 and 8-4.....	43 00@ 44 00
Good edge culms.....	14 00@ 15 00
Good stock.....	17 00@ 18 00
CYPRESS.	
4-4X6, No. 1.....	18 50@ 20 50
4-4X6, No. 2.....	14 50@ 15 00
4-4X6, 16 feet, fencing.....	11 50@ 13 00
4-4X6, rough.....	9 50@ 10 00
4-4 rough edge.....	9 50@ 10 00
4-4 edge, No. 1.....	18 00@ 20 00
4-4 " No. 2.....	12 50@ 13 50
HARDWOODS.	
Walnut.	
5-8, Nos. 1 and 2.....	65 00@ 75 00
4-4, Nos. 1 and 2.....	80 00@ 90 00
5-4, 6-4 and 8-4.....	85 00@ 95 00
Newell stuff, clear of heart.....	85 00@ 100 00
Culls.....	20 00@ 30 00
Oak.	
Cabinet, white and red, plain-sawed and good, 1 and 2, 8 inches and up, 12 to 16 feet long, 4-4.....	30 00@ 35 00
Quartered white, 1 and 2 quality, all figured, 6 inches and up wide, 4-4.....	52 50@ 55 00
Culls.....	10 00@ 15 00
Poplar.	
Nos. 1 and 2, 5-8.....	25 00@ 26 00
" " 4-4.....	28 00@ 31 00
Nos. 1 and 2, 6 and 8-4.....	32 00@ 33 00
Culls.....	14 00@ 15 00
SHINGLES.	
Cypress, No. 1 hearts, sawed, 6x20.....	7 50@ 7 75
No. 1 saps, sawed, 6x20.....	5 50@ 6 00
No. 1 hearts, shaved, 6x20.....	6 50@ 7 00
No. 1 saps, shaved, 6x20.....	5 00@ 5 50
LATHES.	
White pine.....	2 65@ 2 70
Spruce.....	2 15@ 2 25
Cypress.....	2 15@ 2 25

Norfolk.

[From our own Correspondent.]

NORFOLK, VA., February 26.

The improvement previously noted in the general lumber market continues steady, with very few changes to note. An encouraging feature is the increasing number of inquiries from the North and East, and, while there is only a moderate volume of business at the moment, the outlook for the near future is more promising. Throughout the saw-mill section of Virginia and the adjacent territory of North Carolina mills are generally resuming operations, which is a good indication of the manufacturers' estimate of the situation. Several charters have been taken during the past week for cargoes, and one mill reports an output of nearly 1,000,000 feet shipped in the last two weeks. Prices continue firm for North Carolina kiln-dried lumber arranged according to the present schedule. Receipts of air-dried lumber continue moderate, and the demand a shade better. Charters are easy at \$2.25 to \$2.50 New York and sound ports, Baltimore \$1.10 to \$1.25 and Washington \$1.50. In milling circles the Tunis Planing Mill, which shut down for repairing machinery, has started up again. The planing mill of the Peas United Lumber Co. at Edenton, N. C., has resumed operations, having been shut down for several days while new machinery was being put in. The receipts of lumber and its products at this port for the month of January were as follows: Lumber, 14,760,173 feet; logs, 8,383,380; staves, 280,672; shingles, 1,107,250, and railroad ties, 12,543.

Charleston.

[From our own Correspondent.]

CHARLESTON, S. C., February 26.

The amount of business in lumber for the week under review has been of the usual volume, and the market continues quiet, with a better inquiry, however, and a fair prospect of an active demand during the next sixty days. Values continue steady for all desirable grades of manufactured lumber, and the demand principally from domestic ports. The shipments for the week were as follows: Schooners Stephen D. Loud, 421,600 feet; Nettie Shipman, 280,000 feet; A. H. Howe, 350,000 feet, and Frank Vanderherken, 400,000 feet, all to New York; the New York steamer took out 17,000 feet of lumber and two carloads of shingles. The total shipments of lumber from this port since September 1, 1893, amount to 20,846,255 feet coastwise and 1,960,000 feet foreign, making a total of 22,806,255 feet, against 23,852,201 feet for the corresponding period last year. The market closes steady as follows: Merchantable lumber, \$14.00 to \$16.00 for city sawed and \$12.00 to \$14.00 for railroad; square and round timber, \$9.00 to \$13.00 for railroad and \$8.00 to \$11.00 for raft; dock timber, \$4.50 to \$6.50, and shipping, \$8.50 to \$10.50; shingles are firm at \$5.00 to \$7.00 per thousand.

Savannah.

[From our own Correspondent.]

SAVANNAH, GA., February 26.

The general tone of business in the lumber market during the past week has been quiet, with a moderate volume of trade in progress. A fair demand, with numerous inquiries, has characterized the market, and it is thought that the improvement will be slow for some weeks, as Northern buyers are not yet prepared to purchase largely. The shipments during the week were as follows: Schooner Martha S. Bement, with 352,162 feet of lumber, and by steamer, 22,791 feet, for Baltimore; per steamer to Philadelphia 39,054 feet, to New York 12,464 feet and to Boston 32,021 feet. The schooner Annie Bliss cleared for Wilmington, Del., with 258,163 feet, and the schooner Beatrice McLean for Barbadoes with 240,256 feet. There has been some demand for

crossties, and values continue steady. Advices from the saw-mill section of the State report mills as gradually resuming operations, but there are yet a number that are idle for want of orders. The general list of values continues firm, and we quote easy sizes at \$11.25; ordinary, \$11.00 to \$14.00; difficult sizes, \$13.00 to \$18.00; flooring boards, \$14.50 to \$22.00, and shipstuffs, \$16.50 to \$25.00. Freights continue quiet at ruling rates, with foreign business more or less nominal. The rates from this and nearby ports in Georgia are quoted at \$4.00 to \$5.00 for a range including Baltimore and Portland, Me. Railroad ties, basis forty-four feet, fourteen cents. To the West Indies and Windward rates are nominal, to Rosario \$12.00 to \$13.00, to Buenos Ayres or Montevideo \$10.00 to \$11.00, to Rio Janeiro \$14.00, to Spanish and Mediterranean ports \$11.30 to \$11.50 and to United Kingdom for orders nominal for lumber at £4 5s. per standard. Steamer rates to New York and Philadelphia \$7.00, to Boston \$8.00 and Baltimore \$5.00.

Mobile.

[From our own Correspondent.]

MOBILE, ALA., February 27.

There is a better demand throughout the general lumber and timber market, and the volume of business during the past week has been rather unusual. The inquiry from both domestic and foreign sources is improving, and commission men and manufacturers look for a good spring business. The shipments of lumber for the week aggregated 2,541,676 feet, well distributed, the demand being from the West Indies, Central America, Africa and the United Kingdom and Continent. The total shipments of lumber since September 1, 1893, to the 24th ult. aggregate 31,566,008 feet, against 38,007,206 feet for the corresponding period in 1892-93. Timber is improving slightly, and business men generally look for a revival in this department. The advices from Europe are of a more encouraging character; stocks are somewhat reduced and values are firmer. The shipments of sawn timber have been much larger than usual during the week, amounting to 214,151 cubic feet, and of hewn timber 30,133 cubic feet, nearly all to the United Kingdom and Continent. Prices continue very steady, with no change to note. Freights continue unchanged, with lumber rates as follows: To the West Indies, \$5.00 to \$6.00 per thousand; coastwise, \$5.25 to \$5.75; Rio de Janeiro, \$12.00, and to Mexico, \$7.50 to \$8.50. Timber to the United Kingdom is quoted at 28s. to 30s. for hewn and £4 7s. 6d. to £5 per standard for sawn. Steamer rates on lumber and timber are done at £5 10s. to £5 12s. 6d. A number of vessels are now loading lumber, and also quite a fleet to arrive. The bark Magne is loading lumber and timber for London. The bark H. B. Kahn is loading for Liverpool by Keyser & Co. The American schooner Achorn is due to the Sullivan Lumber Co.'s wharf to load for Martinique. The Danish bark Valparaiso is loading lumber for the River Platte at the Seaboard Company's wharf. The ship Arklow is being loaded at the Sullivan Lumber Co.'s wharf for United Kingdom. The schooner Wilhelmina and barkentine Alice Dickerman are both loading lumber for Havana, Cuba.

Beaumont.

BEAUMONT, TEXAS, February 26.

The lumber market continues in about the same shape as last reported, and no active business is expected before the first of April. Trade in dealers' stocks is light, but in timber bills there has been an increased demand, and in this line trade has not been in so good condition for the past eighteen months. There is a good export trade, and each week shows an increase of shipments. Values are a shade better on billstuff, but dealers' stocks are

March 2, 1894.]

MANUFACTURERS' RECORD.

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down to rock bottom. The water shipments are steadily increasing, and additional wharfage improvements may be necessary to accommodate the growing trade. There are six or eight vessels at Sabine Pass now receiving cargoes, and others are due to arrive at an early day. Orders for something more than 1,000,000 feet have been booked during the present month by one mill in this city for shipment to an east Atlantic port, 450,000 of which was ordered last week. Other mills here and at Orange are doing equally well in this line of trade. During the past week the Reliance Lumber Co. booked orders for about 300,000 feet. The Long Manufacturing Co. is beginning to ship shingles on their new cut, several carloads having gone out this week. Business at Orange is showing increased activity, and mills are generally working full time.

Southern Lumber Notes.

THE hardwood lumber exporters of Baltimore and West Virginia held a meeting at the Lumber Exchange in this city on the 15th ult. and organized under the name of the Hardwood Exporters' Association. The object of this association is to arrange a system of inspection and to adopt rules governing the same, also to adjust matters relating to freights, terminal charges and any differences existing among members of the association. The following officers were elected to serve for one year: Richard W. Price, president; Robert McLean, secretary; Robert A. Taylor, treasurer, and board of managers, W. S. Price, Clarksburg, W. Va.; Thomas Billsborough, Parkersburg, W. Va.; William Conway, Baltimore, and C. S. Feewsmith, Parkersburg, W. Va. The association invites all recognized exporters of hardwoods, logs and staves in the United States to membership. Applications for membership may be made through the secretary, Mr. Robert McLean, National Marine Bank building, Baltimore.

The Enfield Lumber Co. of North Carolina, having its principal office in this city, has sold its large tract of pine timber land situated on the Wilmington & Weldon Railroad in Halifax and Nash counties, N. C., to Mr. Wilbur F. Jackson, of the firm of E. E. Jackson & Co., of Baltimore. The whole tract includes about 20,000 acres and is estimated to cut 100,000,000 feet of pine, with quantities of oak, cypress and poplar. The controlling interest in the Enfield Company was held by Dill & Roehle and H. M. Harriman, of Baltimore.

The New Export Line.

The Norfolk & North American Steam Shipping Co., which, as announced in the MANUFACTURERS' RECORD several weeks ago, is to place a line of vessels in the trade between Norfolk and European ports, has issued a prospectus in which it states that the ship now being built for the line by Joseph L. Thompson & Sons, of Sunderland, England, is to be of 3395 tons gross register, with a dead weight capacity of 5000 tons. She will be 347 feet overall, forty-three feet beam, with telescopic masts and accommodations for cattle. She will be driven by triple-expansion engines at ten knots per hour, and is to cost nearly \$175,000. She will be first-class in every respect.

The company announces that the export trade of Norfolk has reached such proportions that a regular line of ships such as proposed is necessary to meet the requirements of shippers. The directors of the company include C. W. M. Dale, Thomas W. Lovibond, F. S. Strickland and W. M. Young, of Newcastle-on-Tyne, England. Messrs. Simpson, Spence & Young, of New York and London, are managers. The line will be operated in connection with the Norfolk & Western road.

PHOSPHATES.

Phosphate-Bearing Rocks in Middle Tennessee.

Within the highland belt of country lying west of the meridian of Nashville, and between that and the Tennessee river, the phosphate-bearing beds associated with the black Devonian shale are just now attracting attention on account of the prospect of finding certain parts of them rich enough in phosphate material to be of economic importance. There are two beds or strata containing such material, one immediately above the black shale and the other immediately below it.

That above the shale is a bed made up more or less of grayish, rounded, concretionary masses, named in the writer's notes "balls" and "kidneys." These have been long known to be quite rich in phosphate, and search has been made for the localities where they occur most abundantly. Some of the masses yield from 50 to 65 per cent. of phosphate ($\text{Ca}_3\text{P}_2\text{O}_7$), the other constituents being calcium carbonate, the oxides of alumina and iron, silica and organic matter. When broken the interior often has a granular, open structure, and now and then exhibits fossils, chiefly individuals of a species of lingula. When struck with a hammer they give off a fetid odor.

The bed below the shale has been less studied. Its weathered outcrop has the appearance of a yellowish sandstone, and may often be seen on the slopes of many valleys in the great highland region southwest from Nashville. Of late it has been found to yield locally a very promising percentage of phosphate, and investigations are now going on looking to its full development. The analyses so far made indicate the presence in some samples of as much as 50 to 70 per cent. or more of phosphate. The more complete results will be given hereafter. At certain points the bed contains fish teeth and fragments of bone, having the appearance of a bone bed. It also shows occasionally indications of a coprolitic origin.—J. M. Safford, State geologist, in American Geologist.

In a letter to the MANUFACTURERS' RECORD Mr. Safford adds to the foregoing: "The lower phosphate bed is a regular stratum—in places solid phosphate throughout. My examinations are not yet completed, but the rock is holding out well."

Phosphate Markets.

OFFICE MANUFACTURERS' RECORD,
BALTIMORE, March 1.

The local phosphate market continues quiet and in about the same position as last reported. Buyers have of late contracted heavily ahead for Charleston land and river pebble, so it may be considered that the bulk of the trade is virtually closed for the present, except for odd cargoes. Advices from the Carolina phosphate territory report considerable activity. Land-rock mining is being pushed, and as the case between the State and river miners is settled, and the rules of mining promulgated, considerable work is expected from river-rock companies. In the Florida district there is an active development in progress, and considerable business is doing in low-grade phosphates, while the pebble market is not so active. The local charters reported this week are the schooners Susan B. Ray, Charleston to Baltimore, and the Senator Sullivan, Tampa to Baltimore. Values continue unchanged, and quotations are as follows:

South Carolina rock \$5.00 for Charleston, \$4.75 for Ashley river and \$5.00 to \$5.25 for Ashepoo, S. C., all f. o. b. Florida rock is firm at \$5.25 to \$5.50 for 60 per cent. river pebble, \$5.50 to \$6.00 for 65 per cent. and \$6.25 to \$6.50 for 70 per cent., all f. o. b. Charlotte Harbor or Tampa.

FERTILIZER INGREDIENTS.

The market during the week has been

moderately active for ammoniates, and at the close is quiet and steady, with values in some cases easy and lower. The demand for nitrate of soda is fair, with prices steady at quotations.

The following table represents the prices current at this date:

Sulphate of ammonia.....	\$ 3.90@6	\$4.25
Nitrate of soda.....	2.00@6	2.05
Hoof meal.....	2.35@6	—
Blood.....	2.50@6	—
Azotine (beef).....	2.45@6	2.50
Azotine (pork).....	2.45@6	2.50
Tankage (concentrated).....	2.30@6	2.35
Tankage (9 and 20).....	19.00@20.00	—
Tankage (7 and 30).....	27.00@28.00	—
Fish (dry).....	18.00@20.00	—
Fish (acid).....	18.00@20.00	—

CHARLESTON, S. C., February 26.

Trade in phosphate circles during the past week was rather quiet, shipments filling past contracts being light and few other contracts being made. The manufacturers at home and abroad have about finished purchasing stock for this season. The market, though, continues firm, and an advance of twenty-five cents has been made by many of the large producers. Offering from foreign and coastwise are numerous. The land miners are active and working plants to full capacity. Prices quoted are about \$4.50 crude, \$5.00 to \$5.25 hot-air-dried and \$7.50 ground. The coastwise shipments for the week were as follows: Per schooners Wm. Johnson, 1060 tons, for Weymouth; Blanche Hopkins, 850 tons, for Baltimore; C. E. Schmidt, 800 tons, for Baltimore; Josephine, 1000 tons, for Norfolk; while in port and loading are M. J. Lawrence, for Baltimore; Rilie S. Derby, for Philadelphia; E. R. Emerson, for Wilmington, Del. The fertilizer trade continues heavy, being several thousand tons ahead of amount sold up to this date last season. The river companies are hard at work repairing plants. The Coosaw Company has just finished one dredge and is now at work mining with this. The Beaufort Phosphate Co. will in a couple of weeks have its washboat ready; its dredges are in order and doing some government work. The wrecking company has succeeded in raising the dredge Kennedy, of the Carolina Mining Co., which is now in Charleston undergoing repairs, and will be practically a new machine when refitted. The phosphate commission has issued the rules and regulations to govern miners in the State waters hereafter; they are wholly acceptable to the miners, and they express themselves altogether satisfied.

Phosphate and Fertilizer Notes.

MESSRS. J. M. LANG & CO. report the shipments of phosphate rock through the port of Savannah for the month of January 736 tons to Germany per steamship Edemore and 500 tons for domestic use.

AT the annual meeting of the High Springs Phosphate Co., held recently, the affairs of the company were reported in a healthy condition. The following are the board of directors for the ensuing year: A. W. Barrs, H. W. Clark, D. B. Upson, R. D. Knight, Lockhart Little, L. Furchgott and W. A. Bours. At a subsequent meeting of the new directors the following officers were elected: A. W. Barrs, president; H. W. Clark, vice-president, and W. A. Bours, secretary and treasurer.

THE Stonewall Phosphate Co., at Juliette, Fla., will begin work again at an early date.

THE Dunnellon Phosphate Co. held its annual meeting at Ocala, Fla., on the 20th ult. Among those present were Dr. Charles A. Sheppard, of Charleston, S. C.; Hugh D. Auchencloss, of New York city, and Mr. Bradlys, representative of Boston.

THE phosphate business at Fernandina during the week ending the 24th ult. was very quiet. The steamers Ruabon, Red Jacket, Tonsburg and Georgia are due, and there are 250 loads of phosphate in the yards awaiting the arrival of these ves-

sels. The Florida Central & Peninsular Railroad yards are almost blocked with phosphate rock.

THE Camp Phosphate Co., of Albion, and J. G. Carlyle, of High Springs, Fla., have placed their orders for complete phosphate-washing plants with McLanahan & Stone, of Hollidaysburg, Pa.

MR. A. B. CAMPBELL, president of the Board of Trade of Jacksonville, Fla., has issued his circular inviting such phosphate mine owners as have actually developed their properties to a meeting to be held on March 13. The purpose of the meeting, as previously mentioned, is to place the phosphate industry on a better basis by the co-operation of those interested in the industry.

THERE is considerable activity at present among the river miners of phosphate in South Carolina. The Coosaw Company has one dredge at work, while the Beaufort Phosphate Co. will have its dredge working in a few days. The Farmers' Phosphate Co. already has one dredge at work, and in thirty days will have another. The dredge John S. Kennedy, which has been at the bottom of the Coosaw river since the storm, has at last been raised, turned over, stripped of its machinery and towed to Charleston. This dredge will be restored and will continue to be used in the territory.

THE schooner Florence Magee, from Port Tampa to Baltimore with phosphate rock, was wrecked opposite Bodies Island life-saving station on the 26th ult.

THE French Phosphate Co., whose extensive works are near Anthony, Fla., are in the market for the purchase of additional machinery, of which particulars are given in our Construction Department.

THE board of phosphate commissioners met on the 23d ult. at Columbia, S. C., for the purpose of adopting rules in compliance with the act of the legislature fixing the royalty on phosphate rock on a sliding scale, according to the price at which the rock was sold. As the rules and regulations have been promulgated and a clear understanding arrived at between the miners and the commission, the work of development is expected to become quite active. In land mining there has been some good work in progress so far during the fiscal year. Major E. Willis, in his review of the phosphate industry of South Carolina, gives the output for five months from September 1, 1892, to January, 1893, inclusive, and for the corresponding period in 1893-94, as shown in the following table:

Port.	1893-94.	1893-94.	Total.
Charleston	75,006	77,298	152,304
Beaufort	81,411	20,417	101,828
Total tons.....	156,417	97,715	254,132

Of the above shipments from Charleston 175 tons were foreign, 106,730 tons domestic and 45,399 tons by railroad, amounting to 152,304 tons. Of the Beaufort shipments 58,518 tons were foreign, 30,941 tons domestic and 12,369 tons by rail, making a total of 101,828 tons.

To Open Coal Mines in Colombia.

A correspondent of the MANUFACTURERS' RECORD at Cartagena, United States of Colombia, writes that the scheme for developing the extensive coal lands in that country, which is said to include fully 10,000 square miles of Territory, is about to be carried out by a company of American capitalists, which includes Senator Palmer, of Nevada, and others. At present it is stated that coal in that country costs from \$10.00 to \$15.00 per ton in gold. The total consumption at present is about 112,000 tons in Colombia and Colombian ports alone. Dr. Caracristi, formerly of Washington, is one of the prime movers in the matter.

MECHANICAL.

The New Plant of the Wm. Powell Co., Cincinnati, Ohio.

Referring to the illustration on this page, representing the new plant recently erected for the Wm. Powell Co., of Cincinnati, which is the most complete of its kind in the country, the following description may be interesting: The works consist of a

signal and stop-feed oilers, grease cups, guard steam stops, etc., and its goods are claimed to be standards of excellence and durability, and kept in stock by supply houses throughout the country.

Solid-Die Automatic Bolt-Threading and Special Tapping Machines.

In calling attention to the solid-die bolt machine illustrated in this issue

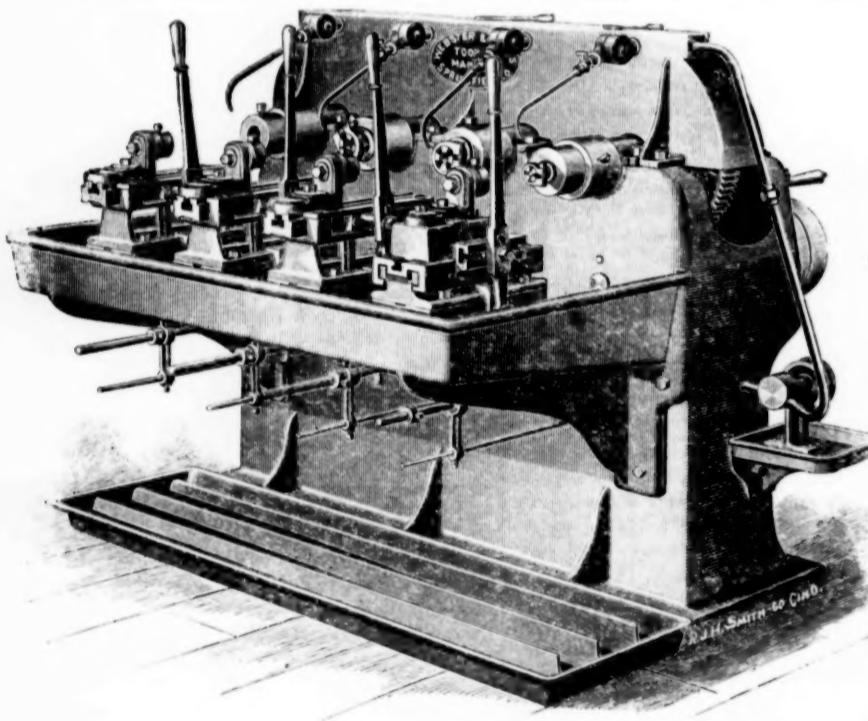


NEW PLANT OF THE WM. POWELL CO., CINCINNATI, OHIO.

group of buildings, "A" containing the offices, warehouse and brass-finishing department, the front being 119 feet and three stories high by 175 feet long, of pressed brick trimmed with sandstone, making a very handsome and substantial appearance.

Building "B" is the foundry, 60x150 feet, and "C" the pattern-house. Each building is separate and distinct, being isolated

it may be said that the manufacturer has had long and varied experience in the manufacture of screws and bolts with nearly all makes of screw and bolt-threading machinery, and meeting with the same difficulty as other manufacturers to turn out large quantities in the least possible time from rough iron which is neither round or to size, led it to manufacture these solid-die automatic



SOLID-DIE AUTOMATIC BOLT-THREADING AND SPECIAL TAPPING MACHINE.

as much as possible for protection against fire.

The engine is of 150 horse-power, Corliss type, and the boiler an upright one of the company's own design.

An eighty-five horse-power generator furnishes the current for five motors distributed throughout the various buildings, and also for lighting 350 incandescent lights and ten arc lamps.

The Powell Company manufactures a large line of steam specialties, such as star valves, star sight-feed lubricators,

bolt-threading and special tapping machines. They are made in three sizes, of two, four and six spindles, and a special rapid two-spindle, which the manufacturer claims are "more reliable than is possible for any open-die machine to be."

The Webster & Perks Tool Co., Springfield, Ohio, manufacturer of these machines, says: "Manufacturers are aware of the time required to replace and adjust the open-die machines, as they all have to be set by screws to rings or other marks on the head, and several bolts at least have to

be cut and tried before the desired size is obtained, and even then not knowing whether the following bolt will be cut to the required size.

"With these solid-die machines the extreme change from the shortest and smallest bolt to the longest and largest can be made in one minute's time.

"Another advantage with these machines is that in making changes you need only stop the spindle upon which the change is desired; in fact, it takes no longer to make a change on these solid-die machines than it does in the ordinary solid-die hand stock.

"The machines are so arranged that part of the spindles may be used for special or other tapping, while the rest of the spindles are threading bolts or studs.

"Dies of these machines require less than one-half the steel necessary for an open-die machine and will last much longer, all mechanics being well aware that a tool will not keep sharp that cannot be held rigid to its work.

"For nut tapping, etc., they are the fastest and will thread and tap more work than any machine in the market, and we guarantee that for studs, etc., such as are used on engines, pumps and the like, they are equal to lathe work. In tapping nuts there are from two to four nuts on the cutting part of the tap at the same time, thus making it the fastest nut tapper in the world.

"We furnish these machines with counter-shaft, pulleys and hangers, oil pumps and all necessary oil pans and strainers ready to set up and put to work."

For further information address the Webster & Perks Tool Co., Springfield, Ohio.

Corrugated Iron and Ridge Capping.

The majority of people contemplating building look around for the latest improvements, and, taking into consideration the quality, the cheapest goods. The Garry Iron & Steel Roofing Co., of Cleveland, Ohio, manufacturers of corrugated iron and steel, carry a large stock, and can make any special size that may be desired. The latest devices in the way of machinery, and the many improved methods employed

corrugations run up and down the building which prevents buckling and gives more elasticity to the material.

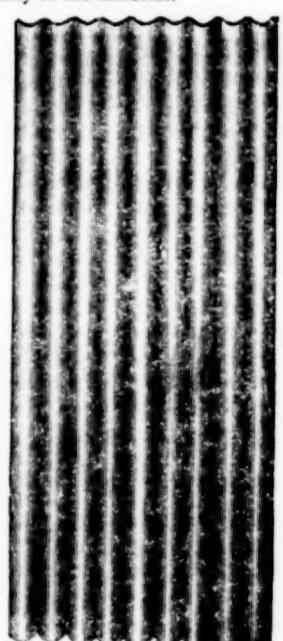


FIG. 1.

Any requests for further information or prices on the above will be cheerfully complied with by this company.

Substitute for Leather Tanning.

Another substitute for oak and hemlock in tanning leather is being raised in the Southwest. It is termed canaire. The market is supplied at present almost exclusively by planters in Texas, New Mexico and Arizona. About 800 carloads were marketed last year, and the shipments promise to be twice as large this year. The plant grows best on well-watered, sandy soil, but thrives almost anywhere in the South and requires very little attention. The roots are planted and harvested like potatoes. From the seed tuber a dozen others are produced, making the yield very large. This new Southern product is used not only for ordinary tanning purposes, but also for shoe uppers, fine saddlery and fancy leathers. It can be used alone or in

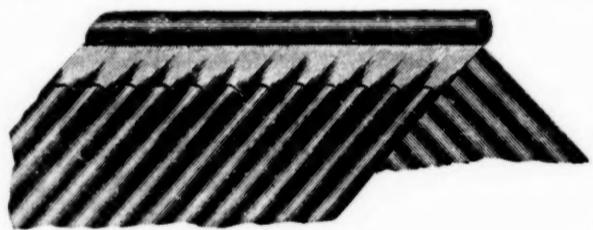


FIG. 2.

in the manufacture of these goods, enable them to ship all orders promptly upon receipt.

The two and one-half-inch corrugated is the size most commonly used for roofing purposes. The accompanying illustration gives a good idea of how it looks when applied to a gable roof and finished with the corrugated ridge capping, which makes one of the most durable and waterproof roofs that can be had.

The corrugated ridge capping deserves special consideration, as it does away with the corrugated wood strips, saves time in application, is also less expensive and can be furnished to fit any size of corrugations.

In applying these corrugated sheets to ceilings, the three-quarter and one-and-one-quarter-inch are sizes most generally used, and this corrugated iron (or steel) of just itself makes an exceedingly neat ceiling. Some, however, prefer to have it panelled off in squares by fancy strips for this purpose, which after completion looks very artistic.

It is also largely used for siding purposes, but for elevator siding the sheets are corrugated crosswise, and in this way the

connection with other material. It is recommended not only for its quickness and thoroughness in tanning, but also for the color, beauty, consistency and pliability imparted by it to the leather. It is stated that it was only six years ago that the first shipment of canaire to Europe was made, but the root has a large sale there now.

A Mexican Irrigation Scheme.

A large tract of land near Camargo, Mexico, is to be irrigated by a canal about nine miles long leading from San Juan river. The project is to draw water from the San Juan above Camargo by means of a dam constructed of solid stone masonry facing, the heart being of concrete. It will be about thirty feet high and 500 feet wide,

with a subsidiary dam eight feet high about 150 feet lower down the stream, forming a water cushion to break the force of water passing over the falls. The canal will start at right angles from the direction followed by the river. Several tunnels will be bored through hills, and it is expected the total expense will be about \$750,000. Don Santiago Seguin is at the head of the enterprise, and H. Scougall is engineer.

CONSTRUCTION DEPARTMENT.

WE PUBLISH, every week, a list of every new factory, of whatever kind, projected anywhere in the South; every railroad undertaken, and every mining company organized. This information is always fresh, and, by enabling manufacturers to correspond with the projectors of such enterprises before their supplies of machinery have been purchased, is of great value. Manufacturers will find it to their interest to read this department carefully each week.

* Means machinery is wanted, particulars of which will be found under the head of "Machinery Wanted."

** In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the MANUFACTURERS' RECORD.

ALABAMA.

Birmingham—Water Works.—The city council held a meeting on February 21 and empowered the city attorney to draw up a contract for the purchase of the Birmingham Water Works Co.'s plant by the city at \$1,400,000. Of this amount the city is to assume \$600,000 of 6 per cent. 30-year bonds, already issued by the water company, and agrees to pay the balance in city bonds bearing 5½ per cent., payable in thirty years. The purchase is subject to ratification by a vote of the citizens.

Coosa County—Gold Mines.—It is reported at Birmingham that a strong company is forming in the North to develop the gold deposits of Coosa and Clav counties in Alabama.

Gadsden—Ice Plant.—Adams and Givens have rented the Gadsden Ice Co.'s plant for the season.

Gadsden—Hoop Factory.—Wiscott & Garner are erecting the hoop factory noted during the week, and not R. B. Kyle, as was stated. Necessary machinery has all been purchased.

Mobile—Canning Factory.—The erection of a canning factory is proposed and subscription books will be started. Henry Fonde can be addressed for information.

Mobile—Grain Elevator.—The Commercial Club is endeavoring to interest the business men of Mobile in the erection of a grain elevator, and hope to succeed.

ARKANSAS.

Centre Point—Wagon Factory.—J. S. Barton will establish a wagon factory.

Centre Point—New Woolen Machinery.—J. A. Hughes will put additional machinery in his woolen mill, such as looms, warper, press, picker, roll card, etc. Outfit all purchased.

Hot Springs—Cracker Factory.—Ledgerwood Bros. are building a new cracker factory on Ouachita avenue, and will manufacture crackers and similar goods to supply the local trade and that of the surrounding towns.

Hot Springs—Brick and Tile Works.—A plant for the manufacture of paving, fire, pressed and ornamental brick for building purposes and sewer tiling has been built near Hot Springs, and will be ready for operation in the course of a few weeks. Messrs. John Loughran, John J. Sumpter and others are interested in the enterprise. They are putting in improved machinery, with a sixty horse power engine. Some of the machinery has yet to arrive.

Little Rock—Mercantile.—The Phillip Pfeifer Grocer Co. has been organized with a capital stock of \$6000. Phillip Pfeifer is president; Leopold Dreyfus, vice-president, and A. H. Pfeifer secretary.

FLORIDA.

De Land—Starch Factory.—H. Chance will organize a company to erect a starch factory.*

Jacksonville—Phosphate Plant.—Benton & Upson have contracted for a phosphate-washing plant, screens, etc., to be erected in the hard-rock district of Florida.

Tallahassee—Gas-works Improvements.—The purchasers of the Tallahassee Gas Works have organized as the Capital City Light & Fuel Co., with W. M. McIntosh, Jr., president; W. A. Rawls, secretary and treasurer, and D. MacLachlan, superintendent. The new company has a capital stock of \$30,000, and intends to improve the plant so that gas can be furnished at a low rate.

GEORGIA.

Atlanta—Garbage Furnace.—The city will erect a garbage crematory at a cost of about \$10,000. A committee appointed on the matter has recommended that the contract be given to the Dixon Crematory Co.

Atlanta—Machine Works.—The Winship Machinery Co. has put its large plant in operation again with 150 workmen.

Atlanta—Bed and Mattress Factory.—The Gate City Excelsior Co. has amended its charter, changing name to the Gate City Mattress & Spring Bed Co., and giving privilege to manufacture beds and mattresses. The company also has privilege of increasing its capital stock to \$50,000.

Atlanta—Bridge.—The construction of a bridge over the East Tennessee & Florida Railroad tracks on South Pryor street is talked of. The county commissioners can be addressed for information.

Atlanta—Mercantile.—John A. Fitten, A. P. Thompson, E. P. Black, H. M. McKeldin and L. L. McClesky have incorporated the Fitten-Thompson Hardware Co., with a capital stock of \$25,000, to deal in hardware, etc.

Atlanta—Printers' Supplies.—Wm. C. Dodson, Cornelius H. Johnson and Geo. S. Lowndes have incorporated the Dodson Printers' Supply Co. to manufacture and deal in printing presses, inks, etc. The capital stock is \$100,000.

Augusta—Cotton-mill Improvements.—The Sibley Manufacturing Co.'s mill, noted in BULLETIN of February 21 as being enlarged, is located at Augusta, and not at Sibley, as was stated.

Augusta—Granite Quarries.—The Diamond Blue Granite Co. has completed a branch railroad from its quarries, in Oglethorpe county, to the Georgia Railroad, and developments will now be extensively pushed. P. G. Burum, of Augusta, is president of the company.

Cartersville—Ochre Mill.—The Georgia Standard Ochre Co. has leased the Cartersville Ochre Co.'s mill, and will put it in operation at once.

Cochran—Canning Factory.—Endeavors are being made to start a canning factory. Wm. H. Mobley can probably give information.

Cochran—Electric-light Plant.—Wm. H. Mobley is endeavoring to secure the erection of an electric-light plant.

Dalton—Boiler and Machine Works.—Senter Bros. lately noted as erecting machine shop, will manufacture boilers, steel clarifiers, mixers, evaporators, etc. Senter's double-return water-tube boiler will be made a specialty.*

Franklin—Cotton Mill.—It is said that the citizens are endeavoring to organize a cotton-mill company.

Hawkinsville—Canning Factory.—McC. Pate and J. B. Wilson have purchased a farm near Hawkinsville, where they will cultivate tomatoes and operate a canning factory of 5000 to 10,000 cans daily.

Macon—Flour Mill.—The bureau of information is in receipt of a letter from a Berea (Ohio) party, who wants to locate a flour mill at Macon. Address the secretary for further information.

Newnan—New Machinery.—The Wahoo Manufacturing Co. contemplates putting in looms to make webbing.

Perry—Water Works.—It is said that the construction of a system of water works is being agitated.

Rockmart—Slate Quarries.—J. J. Craig, T. L. Van Deventer, of Knoxville, Tenn., and others have purchased slate quarries near Rockmart, and will develop them. It is said that the purchase price was about \$35,000.

Rome—Cotton-tie Mill.—Harper Hamilton, who recently purchased the Rome Cotton-tie Mill, is making arrangements to have the plant operated, and hopes to be successful.

Rome—New Machinery.—The Rome Brick Co. will put its plant in operation soon with a force of 100 hands. New machinery for manufacturing paving brick will be put in.

Savannah—Publishing Company.—J. J. Doolan and W. M. Bauman have incorporated the Dispatch Publishing Co. with a capital stock of \$5000 and privilege of increasing to \$25,000.

Tallulah Falls—Lumber Plant.—A Minneapolis syndicate is buying up options on timber lands on the Tallulah river with the intention of erecting a large lumber plant to cut the timber. Col. W. D. Young, of Tallulah Falls, represents the syndicate.

Valdosta—Guano Factory.—Frank Roberts, B. W. Bently, J. G. Stevens and Leonard Shaw contemplate building a guano factory in Valdosta. About \$40,000 may be invested in the business.

Valdosta—Turpentine Manufacturing, etc.—Jno. R. Young, Jno. T. Roberts, A. C. McLeod and D. G. Maloy have incorporated the Suwanee Turpentine Co. for the purpose of manufacturing tur-

pentine and rosin, etc. The capital stock is \$10,000.

KENTUCKY.

Carrollton—Electric-light Plant and Ice Factory.—L. E. Fox, of Tuscaloosa, Ala., contemplates erecting an electric-light plant and an ice factory in Carrollton. Mr. Fox offers to erect the ice plant if a site is donated, and this condition will doubtless be met.

Elizabethtown—Electric-light Plant and Water Works.—The city also contemplates an electric-light plant, besides the water works noted during the week. R. L. Wintersmith is mayor.*

Glasgow Electric-light Plant.—H. C. Masters and W. P. Bybee have purchased the Glasgow Electric-light & Power Co.'s plant, and will operate same after installing new machinery.

Greenwood—Coal Mines and Saw Mills.—The Cumberland Mining & Lumber Co., which recently purchased the Beaver creek property, in Pulaski county, has organized with O. V. Hensley, president; George Walnitz, Jr., vice president and treasurer; Newton Evans, secretary and general manager, all of Cincinnati, O. By March 15 operations in coal-mining will commence, and saw mills will soon be erected to cut the vast forests of timber in the company's possession. The company has an office on Fourth street, in Cincinnati, and W. W. Rees, of Greenwood, will manage its mines.

Parkland—Paving Improvements.—R. L. Clark & Co. have been awarded contract to grade and pave sidewalks amounting to about \$12,000.

Shroyer's Ferry (not a postoffice). **Woodford County Distillery.**—John T. Barbee & Co., of 132 Second street, Louisville, Ky., have purchased the Johnston Miller distillery near Shroyer's Ferry, and will put it in operation at once.

Valley View—Lumber Mill.—The Southern Lumber Co. has put its plant in operation again, after a cessation of two months.

LOUISIANA.

New Orleans—Drainage System.—The city's advisory board on city drainage held a meeting during the week at which a paper was read on the proposed system which is estimated to cost \$3,844,582. The mayor can be addressed for information.

New Orleans—Paving Contractors, etc.—The Bartlett Gravel & Paving Co., Limited, has been incorporated with a capital stock of \$100,000 for the purpose of mining gravel, contracting for paving, etc. Walter H. Cook is president; Lloyd Posey, vice-president; Lewis W. Bartlett, secretary and treasurer.

Paintcourtville—Sugar Mill.—Landry & Dugas, of Sweet Home plantation, will erect a new six-roller sugar mill this year in Iberville parish.

MARYLAND.

Annapolis—Cemetery Company.—Robert Moss, C. A. Dubois, G. D. Ridout, D. R. Magruder, Jno. C. Bannon and others have incorporated the Annapolis Cemetery Co. with a capital stock of \$3000.

Baltimore—Ore Mining, etc.—A certificate of incorporation of the National Mining & Milling Co. of Baltimore County has been placed on record. The company is formed for the purpose of mining metallic ores and preparing the products for market. Christian Ax, George W. Gail, William Thomas Wilson, John Appleton Wilson and Henry C. Turnbull, Jr., are the incorporators. The capital stock is \$100,000, in shares of \$100 each.

Baltimore—Distillery.—Henry Hartman, Jr., Wm. E. Green, Samuel Dorf, Lewis M. Rosenberg, George Pollock and Chas. J. Wiener, of Baltimore, and Selig Manilla, of Springfield, Mass., have incorporated the Belle of Baltimore Distillery Co. for the manufacture of whiskies, etc. The capital stock is placed at \$25,000.

Catoctin Furnace—Iron Furnace.—It is said that the Catoctin Mountain Iron Co. will put Deborah furnace in blast very soon.

Ijamsville—Flour and Hominy Mill.—W. H. Turner will rebuild his flour mill reported last week as burned. Will also add meal and hominy mills and grain elevator. Mr. Turner has not bought any machinery yet.*

Snow Hill—Water Works.—A bill will be introduced in the legislature to authorize Snow Hill to issue \$18,000 of bonds for water works.

Woodbine—Canning Factory.—E. G. Selby will build a tomato-canning factory to employ from thirty to forty hands.*

MISSISSIPPI.

McComb City—Ice Plant.—An ice plant will be erected. O. B. Cum, mayor, can give information.

Meridian—Woodworking Plant.—Snyder Sons & Co., of Piqua, Ohio, have made a proposition for the establishment of a plant in Meridian, estimated to cost \$100,000, for the manufacture of

vehicle parts. L. S. Haworth of Meridian, submitted the proposition for the firm.

Meridian—Lumber Plant.—The Interstate Lumber Co., of Chicago, will overhaul its Meridian lumber plant and put it in operation.

State Line—Wood Mill.—Eagan & Dantley are erecting a kindling-wood mill at State Line. Machinery has all been purchased for \$500.

MISSOURI.

Kansas City—Ice and Cold storage Plant.—A charter has been granted to the Kansas City Ice & Cold Storage Co. with A. J. Morris, O. W. Butt, A. Menny and M. H. Gray as incorporators. The capital stock is \$50,000.

Monett—Electric-light Plant and Ice Factory.—A company has been formed and let contract for the erection of an electric-light plant and a 20-ton ice factory.

Neosho—Electric-light Plant.—The city will hold an election on April 17 to vote upon a proposition to issue \$12,000 in bonds for an electric-light plant. For further information address Peter Wendell, Jr., mayor.

St. Louis—Plumbing.—John Schoen, Sadie Schoen and A. Diestelhorst have incorporated the John Schoen Plumbing Co. with a capital stock of \$10,000.

Unionville—Coal Mines.—The Emporia Coal & Coke Co., of Emporia, Kans., will soon commence work on coal mines at Unionville, where it has 90-year options on 1400 acres of lands.*

Warrensburg—Water Works.—J. H. Christopher, Marion Christopher and Wm. P. Hunt have incorporated the Warrensburg & Perle Springs Water Works Co. with a capital stock of \$150,000.

NORTH CAROLINA.

Charlotte—New Machinery.—The Charlotte Steam Laundry has put in additional machinery.

Charlotte—Chair Factory.—The erection of a chair factory is talked of. T. S. Cooper can probably give information.

Edenton—New Planing Machinery.—The Peas United Lumber Co. has placed new machinery in its planing mill.

Goldsboro—New Machinery.—L. D. Gulley will add 1600 or 2000 spindles to his cotton mill, and has not yet purchased same.

Halifax County—Timber Lands, etc.—Jackson Bros., of Salisbury, Md., have purchased a tract of about 20,000 acres of timber land in Halifax and Nash counties, N. C. The tract, as a whole, is estimated to cut 100,000,000 feet of pine lumber, oak and poplar, and Messrs. Jackson & Bro. doubtless intend to thoroughly develop, as they are large saw-mill operators.

King's Mountain—Cotton Mill.—The Crowder's Mountain Cotton Mill, now building, will start operations about April 1.*

Maxton—Foundry.—The Maxton Manufacturing Co. has completed a new foundry and put it in operation.

Mooresville—Cotton-mill Enlarging.—The Mooresville Cotton Co. will increase its capital stock to \$10,000, enlarge its mill building and put in looms.

Newell—Cotton Mill.—The erection of a cotton mill is talked of. No names have as yet been mentioned in connection with the project.

Statesville—Tobacco Factory.—Key & Co. have under consideration the erection of the tobacco factory noted last week, and will probably build it five and a half stories high, and main building 100 feet in length.

Ward's Mill—Corn and Saw Mill.—W. J. Montfort, Sr., will rebuild his saw mill and corn mill.*

Wilmington—Lampblack Factory.—J. R. Hanby & Co. will rebuild on an enlarged scale their lampblack factory, noted as burned.

SOUTH CAROLINA.

Abbeville—Cotton Mill.—The erection of a cotton mill is proposed, and steps have been taken to organize a company. No further particulars at present.

Abbeville—Iron Works.—W. P. Beard, W. F. Beard and J. C. Klogh have incorporated the Tugalo Iron Works with a capital stock of \$12,000.

Fort Mill—Cotton Mill.—W. A. Watson, J. M. Spratt, P. K. Mull, J. W. Ardrey, R. A. Culp, David Trainer and Clarence P. Culp have incorporated the Mile Ford Mill Co. for the purpose of manufacturing cotton goods with a capital stock of \$140,000. This concern will operate the new weaving plant just built and heretofore referred to as the Luna Mill.

Georgetown—Water Works.—The construction of

a system of water works is contemplated. W. D. Morgan can be addressed.*

Greenville—Flour Mill.—Messrs. Hunt & Adams's new flour mill, noted last week, will have a daily capacity of fifty barrels. All machinery has been purchased.

Pacolet—New Looms.—The Pacolet Manufacturing Co. has started the 798 new looms lately placed in its No. 3 mill, and has ordered 226 more, making 1024 in all.

TENNESSEE.

Bristol—Lumber Plant.—The Willey Boom & Lumber Co.'s new buildings are about completed, and in a couple of weeks it will remove its Bluff City machinery to Bristol. Some additional and new machinery will also be put in.

Cleveland—Lead-mining.—Charles Steel, of New York, now at Cleveland, will develop, it is said, lead deposits in Chatata valley.

Dayton—Iron Furnace Resuming.—The Dayton Coal & Iron Co. is reported as to put its furnace in blast this week, after an idleness of four months owing to misunderstandings of the company and the workmen.

Elizabethhton—Furniture Factory.—The Tennessee Furniture & Lumber Co. is about to start its factory.

Gallatin—Spoke Factory.—The Westmoreland Stave Co. has put its factory in operation again with fifty men at work.

Gallatin—Spoke Factory.—The Gallatin Manufacturing Co. has resumed operations at its spoke factory after five months' suspension.

Huntsville—Mines and Lumber Mills.—The Ohio-Tennessee Coal & Lumber Co., noted last week, will include in its operations three to six saw mills and opening several mines, to employ in total about 250 men.*

Memphis—Gas Works.—It is said that Memphis parties are contemplating the purchase of the Memphis Gas Works Co.'s plant.

South Pittsburg—Distillery.—M. Dietzen will erect a large distillery on his farm near South Pittsburg.

Springvale—Printing Works, Soap Factory, etc.—W. A. Hartman will engage in the manufacture of soap, medicines, rubber stamps, and operate printing office.*

TEXAS.

Ada—Corn Mill.—W. F. Spiller will erect a cotton gin and corn mill.*

Beaumont—Telephone System.—E. L. Bacon will construct a telephone system and exchange.

Big Springs—Irrigation Canals, etc.—The Brown Irrigation & Land Co., of Austin, noted recently as chartered, will construct at Big Springs a 120 foot dam on the North Concho river. Contract will be let very shortly.

Blooming Grove—Cottonseed-oil Mill.—A report states that the citizens are arranging for the erection of a 30-ton cottonseed-oil mill to cost \$30,000.

Clifton—Flour Mill.—A flour mill is to be built. W. S. Helm can give information.

Cline—Asphalt Works.—A New York syndicate which owns 16,500 acres of rock asphalt lands in Uvalde county has broken ground for a factory which will handle sixty tons of rock per day and produce fifteen tons of pure asphalt. W. W. Trask, of San Antonio, is manager of the enterprise.

Columbia—Steel Bridge.—The bridge committee is now advertising for bids on the proposed \$30,000 steel and iron bridge across the Brazos river. J. P. Underwood is c'tairman.*

Dallas—Plow Works.—The Texas Disc Plow Co., noted last week as incorporated, will for the present contract for its plows.

Eagle Pass—Coke Ovens.—The Coahuila Coal Co. is reported as to increase its coke ovens.

Fort Worth—Cotton Mill.—The erection of a large cotton mill is talked of. J. G. Scott and F. A. Worth can furnish information.

Fort Worth—Manufacturing.—W. G. W. McKee, C. R. Brown, P. Hackett, C. F. Smith and S. M. Furman have incorporated the Texas Manufacturing Co. with a capital stock of \$15,000.

Fort Worth—Gold and Silver Mines.—W. A. Santer and J. H. Patterson have interested Eastern capitalists in gold and silver deposits in Menard county, and extensive developments with machinery will, it is said, be started.

Gainesville—Telephone System.—J. N. DuBoise is endeavoring to secure sufficient subscribers to put in a telephone system.

Jefferson—Tannery.—John Guitar, Jr., contemplates establishing a tannery.

Laredo—Gold Mines.—The Laredo Mining Co. has been organized to develop gold mines. Machinery has not yet been purchased, as the kind desired is not yet decided upon. A Mr. Devers is interested.

Mexia—Water Supply.—Endeavors are being made to sink an artesian well for water supply. M. W. Kemp can be addressed for information.*

Milano—Water Works.—A water-supply system is proposed, and P. W. Buer, of the Union Depot Hotel at Dallas, is interested.

Pecos—Canal Company.—W. H. Dodson, G. W.

Phillips and C. E. Bushhelz have incorporated the Reeves County Canal Co. with a capital stock of \$5000.

Quanah—Sheet-iron and Tin Works.—J. C. Bell, W. B. Tullis and H. W. Martin have incorporated the Stiteler & Carroll Co. with a capital stock of \$20,000. Its purpose is to conduct a manufacturing business in sheet iron, tin and other metal goods.

San Antonio—Oil Mill, etc.—T. A. Diffey, J. M. Chilcru and Amos Goosene have incorporated the Western Cotton Oil Manufacturing & Cold Storage Co. with a capital stock of \$95,000.

Santa Anna—Stone Quarry.—The Santa Anna Stone Co. will open a stone quarry near Santa Anna.

Tyler—Oil Mill.—The erection of a cottonseed-oil mill is talked of. No names are as yet mentioned in connection with the enterprise.

Velasco—Cotton Compress.—The erection of a cotton compress is proposed. Morris Sase can be addressed for information.

Victoria—Artesian Well.—O'Connor Bros. have let contract for the sinking of an artesian well on their Refugio county ranch.

VIRGINIA.

Advance Mills—Barrel-hoop Factory.—George I. Herring intends to build a barrel hoop factory.*

Alexandria—Tannery Enlarging.—C. C. Smoot & Sons contemplate enlarging their tannery.

Bedford City—Ice Plant.—The erection of an ice plant is rumored.

Buena Vista—Machine Works.—The Alexander K. Rarig Co. purchased the Rarig Machine Works at public auction on Friday last for \$20,000.

Cedar Bluff—New Machinery.—Scott Bros., McGuire & Co. have completed their woolen mill and will soon commence operations.

Chilhowie—Woodworking Plant.—James W. Lankford will put in woodworking machinery.*

Christiansburg—Gold Mines.—E. A. Reige, of Hotel Fredonia, Washington, D. C., has an option on Walters & Gardner's gold mine, near Christiansburg, until May 1. The owners think a sale will be effected.

Fredericksburg—Shoe Factory.—There are rumors of a shoe factory being started. Nothing definite known as yet.

Harrisonburg—Ice Plant.—H. C. Pankey will erect an ice plant of about seven tons capacity, with cold-storage rooms attached, and will put in a dynamo for lighting purposes. Work on buildings will commence at once. Machinery has not been purchased.*

Manchester—Water Works.—The city council has appointed a committee to arrange for the purchase of the Manchester Water Co.'s works. For further information address the mayor.

Martinsville—Water Works.—The city has let contract to the Virginia Construction & Paving Co. for the construction of a complete system of water works. Plant is to be finished within ninety days and will cost \$27,000.

New Castle—Canning Factory.—H. W. Voder and R. J. Slasser have made arrangements for the erection of a factory for canning fruit and vegetables.

Newport News—Tannery.—Pennsylvania capitalists, now at Newport News, are said to be considering the erection of a large tannery.

Petersburg—Iron Works.—The reorganized Petersburg Iron Works Co., lately noted fully, has obtained its charter, and operations will shortly commence. J. M. Huston is secretary.

Portsmouth—Knitting Mill.—A Northern company will submit at the Portsmouth Cotton Manufacturing Co.'s next meeting a proposition to erect a knitting mill employing ninety hands.

Richmond—Marine Railway, etc.—State Senator Le Cato has introduced in the legislature a bill to allow the erection of a wharf and marine railway on Pungoteague creek, in Accomac county, by B. K. Martin and T. W. Mason.

Ridgemont—New Dry-kilns, etc.—The Ridgemont Cement & Manufacturing Co. will add two new dry-kilns to its plant, put in new boiler and engine and other machinery.*

WEST VIRGINIA.

Huntington—Carriage Factory.—It is reported that George H. Spangler, of Circleville, Ohio, is preparing to remove his carriage factory to Huntington.

Parkersburg—Lumber Company.—A charter has been granted to the Kreps-Rathbone Lumber Co. with a capital stock of \$50,000.

Spencer—Gas and Oil Wells.—A. W. Michalson, of Cambridge, Ohio; W. A. Cole, of Parkersburg; A. B. Wells, Walter Pendleton and S. E. Bogess, of Spencer, have incorporated the Spring Creek Oil & Gas Co. with a capital stock of \$100,000. Its purpose is to bore for petroleum, natural gas, etc.

Wheeling—Cradle Factory.—R. E. Grubbs, of Greenville, S. C., is in Wheeling endeavoring to interest capital in a plant to manufacture a patent safety carriage and cradle.

Womeldorf (not a postoffice)—Coal and Lumber.—A charter has been issued to the Middle Fork Coal & Lumber Co. with a capital stock of \$100,000. The incorporators are J. F. Brown, Joseph Ruffner, D. W. Patterson, Malcolm Jackson and E. W. Knight, all of Charleston, W. Va.

BURNED.

Centreville, Md.—The Centreville school; loss estimate \$4000.

Chattanooga, Tenn.—J. A. Wardlaw & Co.'s grocery; loss \$7000.

Elkton, Md.—Charles Ford's warehouse; loss \$5000.

Ijamsville, Md.—W. H. Turner's flour mill; loss \$15,000.

Leesburg, Va.—The Leesburg Academy; loss estimate \$10,000.

Memphis, Tenn.—Seessel & Ashner's warehouse; loss \$8000.

San Antonio, Texas.—The Peebles Sanitarium; loss \$30,000.

Thornton, Texas.—The Commercial Hotel; loss \$3000. J. E. Barron was owner.

Washington, D. C.—The Masonic Temple damaged by fire; loss estimate \$5000.

Wilmington, N. C.—J. R. Hanby & Co.'s lamp-black factory.

Wilmington, N. C.—W. L. Parsley's planing mill, dry-kilns and lumber shed; loss \$30,000.

Woodlawn, Ala.—Stores of May & Fleming and J. T. Hood; loss estimate \$10,000.

BUILDING NOTES.

Asheville, N. C.—Church.—Contracts have been partly let for an Episcopal church for colored people to cost \$5000. Address the pastor.

Asheville, N. C.—Hotel.—It is announced that Philadelphia capitalists have decided to erect a hotel to cost \$300,000 and have purchased sixty acres of land for a site.

Asheville, N. C.—Hotel Improvements.—It is reported that Frank Cox, owner of the Battery Park Hotel, intends making extensive improvements to that resort.

Baltimore, Md.—Business Block.—S. J. Adler & Son will erect a three-story building for business purposes on Hillen street.

Baltimore, Md.—Chapel.—Rev. Henry L. Keen is interested in a proposed chapel to be built on Calhoun street.

Baltimore, Md.—Dwellings.—Charles Gerwig has obtained permission to build five three-story dwellings on Calvert street.

Baltimore, Md.—Dwellings.—J. W. Sindall has obtained permission to build six two-story dwellings on Townsend street.

Bartow, Fla.—Hotel.—Plans have been prepared for the new hotel which is to be 125x160 feet in dimensions. It will have fifty sleeping apartments. Frank Clark is interested.

Bedford City, Va.—Hall.—The Masonic lodge will erect a building for a hall with stores on the ground floor to cost \$5000.

Gaston, N. C.—Bank.—L. L. Jenkins will receive bids until March 15 for constructing his proposed bank building. C. C. Hook, Charlotte, N. C., is architect.

Gate City, Va.—College.—Plans are to be prepared for a college to be built in Gate City.

Griffin, Ga.—City Hall.—Plans are being considered for the proposed city hall which is to have a clock in the tower. Address the mayor.

Hancock, Md.—Bank.—Bids will be received about March 1 for erecting the new bank building. Address Bridges & Henderson.

Hancock, Md.—Bridges & Henderson.—Bids will receive bids until March 5 for the proposed bank building to cost \$4000.

Jacksonville, Fla.—Market.—A building for public market is to be erected at a cost of between \$60,000 and \$75,000. It will be about 150x200 feet and two stories high.

Jacksonville, Fla.—Armory.—W. N. Emery is interested in a scheme to build an armory to cost \$25,000.

Kansas City, Mo.—Business Block.—George Sheidley will erect a three-story building to contain stores with living apartments above. W. F. Hackney is architect.

Knoxville, Tenn.—Bank.—The building to be erected for the Third National Bank is to be 25x66 feet and two stories high. It will be built of marble and red sandstone, with marble and hardwood interior finish. Address Architect Beaver.

Knoxville, Tenn.—Hotel.—Baumann Bros. are architects for the hotel to be built by Frank McNulty. Plans are being prepared.

Little Rock, Ark.—College Addition.—The Shorter University trustees contemplate building a hall in connection with the college to cost \$5000. Address B. W. Arnett.

Louisville, Ky.—Church.—A. Koop may be addressed regarding plans for St. Peter's Lutheran

Church, for which a building fund is being raised. It will cost about \$30,000.

Louisville, Ky.—Church Improvement.—The sum of \$5000 will be spent in remodeling the interior of the Fifteenth-Street Christian Church. Address the pastor.

Madison, W. Va.—Courthouse.—The county commissioners want bids for constructing the brick jail which it is proposed to build.

Memphis, Tenn.—Theatre Improvements.—The Memphis Opera-House building is to be remodeled and improved at a cost of \$15,000. Two electric elevators will be put in. Address W. D. Bethell.

Memphis, Tenn.—Church.—Plans have been prepared for an Episcopal church to be built in the suburbs. Address C. A. De Saussure.

Mobile, Ala.—Dwellings.—James F. Hutchisson, architect, is preparing plans for two residences to cost \$500.

Montgomery, Ala.—School.—The plans of Bruce & Morgan, of Atlanta, Ga., have been accepted for the school to be built to cost \$18,000.

Monticello, Ky.—School.—A new schoolhouse is to be built by the corporation.

Newberry, S. C.—Church.—The congregation of the Methodist church is considering the idea of building a new edifice. Address J. W. Chapman.

Pineville, Fla.—Hotel.—It is reported that a company has been organized to build a hotel for a winter resort.

Pineville, Ky.—Hotel.—The hotel to be built at Pineville is to have accommodations for seventy-two guests. Plans have been prepared by Architect John Falloon.

Rockdale, Texas—Church.—Funds are being raised to rebuild the Methodist church recently destroyed by a storm.

San Antonio, Texas—Courthouse.—A portion of the walls of the new courthouse damaged by fire will be rebuilt at a cost of \$2500.

Savannah, Ga.—Hall.—Steps are being taken to raise funds to build a music hall. Messrs. Ludden & Bates are among those interested.

Snow Hill, Md.—Courthouse.—The courthouse commissioners are considering plans for a new building. E. H. Taylor and C. J. Purnell are two of the commission.

Suffolk, Va.—Clerk's Office.—Bids will be received for the clerk's office to be built until March 22 by Robert R. Smith.

Tallahassee, Fla.—Hotel.—The Georgia & Florida Investment Co. is about to erect a hotel for a winter resort on its property at Lanark, Fla. It will contain twenty-five sleeping-rooms and be lighted by electricity. Address H. P. Simmons, Tallahassee.

Tilden, Texas—Public Building.—Taxpayers will vote on the question of erecting a new building for a courthouse and jail. Address the commissioners' court.

Uvalde, Texas—Jail.—The question of building a new jail is again being considered. Address Hon. J. N. Garner.

Washington, D. C.—Dwellings.—John F. Slavin will build nine two-story dwellings to cost \$27,000. B. Stanley Simmons is architect.

Washington, D. C.—Church.—The building to be erected by St. Matthew's congregation will be of brick with redstone trimmings, instead of marble, as first proposed. The building will be made larger than was originally intended. Address the pastor.

Washington, D. C.—Dwellings.—Architect G. S. Cooper will build five three-story brick and stone dwellings to cost \$30,000.

Washington, D. C.—Hospital.—Clarence L. Hardin is preparing plans for a block of brick dwellings to cost \$36,000.

Washington, D. C.—Society Building.—Naval Lodge of Masons will erect a four-story brick and stone building with iron framework to contain stores and lodge rooms. It will cost \$35,000. W. J. Palmer is preparing plans.

Wheeling, W. Va.—Casino.—A casino building for theatrical and other purposes is to be erected. Paul Reymann and F. Riester are interested.

THE Nordyke & Marmon Co., of Indianapolis, Ind., is said to be the largest concern in the world devoting its entire energies to the manufacture of milling machinery, and its machinery is seen in

March 2, 1894.]

MANUFACTURERS' RECORD.

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Savannah, Ga.—Arrangements have been made with R. W. Dobson, of Savannah, to build the

RAILROAD CONSTRUCTION.

Railroads.

Alexandria, La.—President F. M. Welch, of the St. Louis, Avoyelles & Southwestern road, states that preparations have been made to begin work on the extension of the line as soon as the people of Avoyelles parish vote to tax themselves for its construction. It is understood that a majority vote is assured. I. W. Sylvester, of Alexandria, is chief engineer.

Atlanta, Ga.—It is stated that surveys have been made between Marietta and Atlanta for the purpose of building a connection between the Marietta & North Georgia and Atlanta & Florida roads. Col. R. F. Maddox, of Atlanta, is interested.

Brenham, Texas.—It is reported that the Hearne & Brazos Valley road, sixteen miles long, is to be extended to Brenham by the International & Great Northern. J. C. Westbrook, at Hearne, is president.

Charlotte, N. C.—It is reported that a movement is on foot in favor of building a railroad line from Charlotte to connect with the Georgia, Carolina & Northern in Spartanburg county, S. C.

Chestertown, Md.—A company with \$500,000 capital is being formed to build an electric road from Chestertown to Queenstown by way of Centreville. The distance is about fifteen miles. Wm. Emery, of Centreville; W. B. Brooks, Jr., and B. S. Johnson, of Baltimore, are interested.

Elkton, Md.—The Pennsylvania Railroad has been given control of the appropriation of \$58,000 for a road from Elkton to Massey's, provided work begins in ninety days and the line is completed in two years. W. H. Brown, at Philadelphia, is chief engineer.

Fredericksburg, Va.—Local business men are talking of forming a company to build an electric line from Fredericksburg to Culpeper.

Hendricks, W. Va.—It is stated that the Dry Fork Railway, which is now partly completed from Hendricks to Harmon, will be in operation between those points by March 15. It is reported that the road will be eventually completed to Covington, Va., which would connect it with the Chesapeake & Ohio.

Kenova, W. Va.—The Kenova Railway Co. has been chartered to build a road from Ceredo, W. Va., to a point on the Chesapeake & Ohio where the latter road crosses the Big Sandy river. L. T. Peck, of Kenova, and F. W. Halsey, of Philadelphia, are interested.

Lebanon, Ky.—It is reported that the Louisville & Nashville may build a connection nine miles long between its Springfield and Knoxville branches in order to shorten the distance to Louisville.

Meridian, Miss.—About \$25,000 has been pledged in stock subscriptions towards the railroad projected from Meridian to Tuscaloosa. A committee is securing further subscriptions. J. R. McIntosh is chairman.

Morgantown, W. Va.—It is reported that the Pennsylvania will soon begin construction work on the Pittsburg, Virginia & Charleston, which has been surveyed from Brownsville to Morgantown.

Norfolk, Va.—The road to be built from a point on the Dismal Swamp Canal into Portsmouth is to be the line by which the Norfolk & Western will enter Portsmouth. It is understood that the United States Cotton Warehouse & Loan Co. is interested in the line. Address J. P. Andre Motte.

Palestine, Texas.—About \$30,000 has been pledged in stock subscriptions for the proposed road from Dallas to Palestine, in which George W. Burkitt is interested. The amount required is \$40,000.

Palmer, W. Va.—The Holly River road being built by the Holly River Lumber Co. is now completed for about twelve miles from Palmer, a station on the West Virginia & Pittsburg. The road extends northeasterly from that station up Holly river to Marple, Laurel and McLean. John C. Arbogast is general manager.

Parsons, W. Va.—The West Virginia Blue Line Railroad Co. has been chartered with \$50,000 capital to build a road from Rowlesburg, W. Va., to Shafersford, on the Cheat river.

Richmond, Va.—The bill in the legislature to incorporate the Southern Railway & Electric Co. is for an electric line projected from Richmond to the Potomac river. W. C. Trueman and A. Pizzini are among the incorporators.

Richmond, Va.—A bill has passed one branch of the State legislature to incorporate the Shenandoah & North River Electric Railway Co.

Richmond, Va.—The Buffalo River Soapstone Co. has asked authority of the legislature to build a railroad into a part of its property.

Roanoke, Va.—G. W. Crumpecker, of the Roanoke Mineral Belt Railroad Co., states that work of construction may begin at an early date. The road will probably be built to connect with the Richmond & Danville at a point about thirty miles from Roanoke.

Savannah, Ga.—Arrangements have been made with R. W. Dobson, of Savannah, to build the

Savannah & Atlantic (Tybee Island) road. Work is expected to begin within a few days.

South McAlester, I. T.—It is reported that arrangements are being made to extend the Choctaw Coal & Iron Co.'s railway from its present terminus at Wister Junction to Little Rock, Ark. E. D. Chadick is one of the receivers.

Springfield, Mo.—Secretary Miller, of the Lake Superior, Southwestern & Gulf road, states that President E. I. Rosenfeld, of the Rosenfeld Construction Co., has signed a contract to build 400 miles of the line from Kansas City, Mo., to Little Rock, Ark. The construction company is said to be composed of New York and Boston capitalists.

Terrell, Texas.—It is stated that the Texas Midland will begin work on the extension from Roberts to Paris as soon as the three-mile extension to Ennis is completed. Address E. H. R. Green, president.

Van Horne, Texas.—The Rio Grande Northern Company has received authority to issue bonds to the amount of \$400,000 to construct its proposed road from Chispa to San Carlos. Address San Carlos Coal Co., Fourth street, Pittsburgh, Pa.

Street Railways.

Henderson, Ky.—An effort is being made to obtain a franchise to build an electric street railway in Henderson. L. Sebree is among those interested.

Hot Springs, Ark.—Word H. Mills, of the Chamber of Commerce, states that arrangements are being completed for building the inclined cable railway to the top of West mountain, where a health resort is to be laid out. George W. Baxter is interested.

Memphis, Tenn.—The Citizens' Railway Co. has begun the work of rebuilding the East End dummy road for use of electric motors. The track will be laid with oak ties and 70-pound steel rails. Contracts partly let. Address F. G. Jones or W. D. Bethell.

Richmond, Va.—F. C. Brauer, Sr., of the Fairmont Railway Co., states that the company intends building an electric road over a route in the city not occupied by other lines. He is desirous of interesting outside capitalists.

Roanoke, Va.—President M. A. Riffe, of the Radford Street Railway, states that the road, which is now being constructed, will be completed by May 1. It is to be two and a-half miles long and will be equipped for electric motive power.

BRIDGE.

Chattanooga, Tenn.—The bridge to be built by the Chattanooga Western Railroad Co. across the Tennessee river will be a steel structure with a draw. It is to be combined railway, wagon and foot bridge. Address F. J. Nichol.

MACHINERY WANTED

If you desire to purchase machinery of any kind consult our advertising columns, and if you cannot find just what you wish, send us particulars as to the kind of machinery needed. We will make your wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. You will thus get all information desired as to prices, etc.

Baling Machines.—The Bishop Fibre Co., Jacksonville, Fla., wants two or three balers or presses to bale fibre; will operate by steam-power.

Betting.—W. F. Spiller, Ada, Texas, will want betting.

Boiler.—Woodward, Swinson & Co., Warsaw, N. C., want a twenty horse-power boiler.

Boiler.—A. M. Prince, Flynn, N. C., wants to buy a fifteen to twenty horse-power boiler.

Boiler.—E. G. Selby, Woodbine, Md., will purchase a thirty horse-power horizontal boiler complete (locomotive style).

Boiler and Engine.—The Ridgemont Cement & Manufacturing Co., Ridgemont, Va., wants a fifteen to twenty horse-power saw-mill boiler and engine.

Boiler and Engine.—H. Chance, De Land, Fla., will want a boiler and engine.

Boiler and Engine.—Godwin & Stewart, Norfolk, Va., are in the market for a twenty-five horse-power boiler and engine.

Boilers and Engines.—The Ohio-Tennessee Coal & Lumber Co. will buy boilers and engines. Address Capt. F. B. S. Morgan, business manager, Cleveland, Ohio.

Bridge.—G. W. Rutherford & Bro., Piedmont, Ala., want prices on an iron wagon bridge 100 feet long.

Bridge-builders.—Bids for contract to build a steel and iron bridge across the Brazos river at Columbia, Texas, will be received until March 12

by J. P. Underwood, chairman of bridge committee. Address R. C. Duff, secretary, at Columbia, for particulars.

Broom Machinery.—J. M. Coyner, Basic City, Va., wants hand-power broom machinery.

Canning Factory.—E. G. Selby, Woodbine, Md., will purchase equipment for canning factory.

Cars.—Compagnie des Phosphates de France, Ocala, Fla., wants 100 to 150 three-foot-gage side or bottom-dumping mining cars of five to ten cubic yards each. Address G. Thuillier, agent.

Car-wheel Machinery.—The Queen City Iron Works, Queen City, Texas, wants machinery for boring car wheels, press for pressing car wheels, car-wheel flask and portable machine for boring cylinders.

Coal Cars.—The Ohio-Tennessee Coal & Lumber Co. will buy coal cars. Address Capt. F. B. S. Morgan, business manager, Cleveland, Ohio.

Corn-mill Machinery.—W. J. Montfort, Sr., Ward's Mill, N. C., will purchase a set of millstones for grinding corn.

Corn Mill.—W. F. Spiller, Ada, Texas, wants a corn mill.

Cotton Gin, etc.—W. F. Spiller, Ada, Texas, will buy cotton gin, cotton press, etc.

Cotton-mill Machinery.—The Crowder's Mountain Cotton Mills, King's Mountain, N. C., want 100 plain looms.

Drying Apparatus.—H. Chance, De Land, Fla., will want a heater for drying starch.

Electric Launches.—The Belton Electric Co., Belton, Texas, wants two or three electric or naptha launches. Address C. B. Smith, treasurer.

Electric-light Plant.—The city of Elizabethtown, Ky., will receive propositions for electric-light franchise until April 1. Address R. L. Wintersmith, Jr., mayor.

Electric-light Plant.—The Georgia & Florida Investment Co., Tallahassee, Fla., proposes to buy an electric-light plant for a hotel. Address H. P. Simmons, manager.

Excavating Plant.—Compagnie des Phosphates de France, Ocala, Fla., wants one or two bucket excavators of a daily capacity of 400 to 600 cubic yards each on wheels of three-foot gage. Address G. Thuillier, agent.

Fire Engine.—W. D. Kimball, Eustis, Fla., will want a hand fire engine or pump, either stationary or portable, "with brake room" for ten to twenty men; second-hand machine in good repair would do.

Flour Mill.—R. H. Davis & Co., Bristoe, Va., will purchase equipment for flour mill.

Gas Engine.—The Osborn Machinery Co., Clarksburg, W. Va., wants a two to three horsepower natural gas engine, new or second-hand.

Gasoline Engine.—E. H. Pritchett, Harve de Grace, Md., wants to purchase a gasoline engine, one and a-half to two horse-power.

Handle Machinery.—The Queen City Iron Works, Queen City, Texas, is in the market for spoke and handle lathes.

Heating Apparatus.—The Georgia & Florida Investment Co., Tallahassee, Fla., proposes to buy a heating apparatus, probably steam. Address H. P. Simmons, manager.

Hoop Machinery.—George J. Herring, Advance Mills, Va., wants machinery for manufacturing barrel hoops.

Hoop Machinery.—Woodward, Swinson & Co., Warsaw, N. C., will probably need coiled-hoop machinery.

Hot-air Furnace.—H. Chance, De Land, Fla., will want a hot-air blast furnace for use in a starch factory.

Incubators, etc.—D. L. McPherson, Abbeville, La., wants incubators, brooders and other supplies for poultry yard.

Iron Casings.—The Ridgemont Cement & Manufacturing Co., Ridgemont, Va., wants estimates on tank-iron casings, each about 30x8 feet, sheets to be punched and shaped.

Knitting Machinery.—Godwin & Stewart, Norfolk, Va., are in the market for machinery to manufacture ribbed underwear.

Locomotives.—Compagnie des Phosphates de France, Ocala, Fla., wants two 15-ton three-foot-gage locomotives, new or second-hand. G. Thuillier, agent.

Machine Shop.—B. W. Arnett, Jr., Little Rock, Ark., wants prices on machinery for industrial department of Shorter University. Mr. Arnett doubtless means machine-shop tools, etc.

Machine-shop Equipment.—Horne & Green, Jasper, Fla., need lathes, power drills and screw-cutting machine.

Medicine Factory.—W. A. Hartman, Springvale, Tenn., wants machinery for medicine factory.

Millstones, etc.—The Ridgemont Cement & Manufacturing Co., Ridgemont, Va., wants 48-inch Esopus millstones, spindles, etc.

Mining Machinery.—The Peach Orchard Coal Co., Peach Orchard, Ky., wants a good second-hand Legg mining machine equipped for air.

Mining Plant.—The Emporia Coal & Coke Co.,

Emporia, Kans., will want complete equipment of machinery for coal mining.

Oil Engines, etc.—Godwin & Stewart, Norfolk, Va., are interested in the examination of naphtha or oil engines.

Piping.—Dr. J. W. Ring, Elkin, N. C., wants to buy 700 feet of one-and-one half-inch second-hand galvanized pipe or second hand block pipe.

Printing Presses, etc.—W. A. Hartman, Springvale, Tenn., wants small printing presses, type, ink, etc.

Power Punch.—Senter Bros., Dalton, Ga., want a second-hand power punch with about 26-inch throat or more.

Pulleys, etc.—W. F. Spiller, Ada, Texas, will want pulleys and shafting.

Pulverizer.—H. Chance, De Land, Fla., will want machine for grinding cassava root.

Rails.—The Ohio-Tennessee Coal & Lumber Co. will buy rails. Address Capt. F. B. S. Morgan, business manager, Cleveland, Ohio.

Road-improving Machinery.—R. H. Davis & Co., Bristoe, Va., will purchase a light steam shovel and a road grader for embankments.

Rock Drills.—E. Dillon & Co., Indian Rock, Va., want to buy one or two good rock drills, second-hand; Ingersoll-Sergeant preferred.

Roofing.—Horne & Green, Jasper, Fla., want to buy iron roofing.

Roofing, etc.—W. H. Turner, Ijamsville, Md., will probably want iron siding and roofing.

Roofing.—The Ohio-Tennessee Coal & Lumber Co. will buy iron roofing. Address Capt. F. B. S. Morgan, business manager, Cleveland, Ohio.

Roofing.—H. C. Pankey, Harrisonburg, Va., will want between sixty and seventy squares of steel roofing.

Saw and Shingle Machinery.—A. M. Prince, Flynn, N. C., wants to buy a second-hand shingle machine, one block machine, a drag-saw machine and a bolter for shingle block.

Saw Mill.—R. H. Davis & Co., Bristoe, Va., will purchase equipment for steam saw mill.

Saw Mill.—W. J. Montfort, Sr., Ward's Mill, N. C., will purchase a saw mill.

Saw Mills.—The Ohio-Tennessee Coal & Lumber Co. will buy equipments for saw mills. Address Capt. F. B. S. Morgan, business manager, Cleveland, Ohio.

Scales.—The Peach Orchard Coal Co., Peach Orchard, Ky., wants to buy good second-hand railway track scales.

Sewing Machines, etc.—The Tri-State Shirt Factory, Huntington, W. Va., needs all kinds of machinery used in a shirt and overall factory.

Soap Machinery.—W. A. Hartman, Springvale, Tenn., wants boilers, presses and other soap machinery.

Vulcanizer.—W. A. Hartman, Springvale, Tenn., wants a vulcanizer for manufacturing rubber stamps.

[March 2, 1894.]

TRADE NOTES.

THE American Cement Co., of Philadelphia, Pa., moved its office to 22 and 24 South Fifteenth street, second floor, on March 1.

THE F. D. Cummer & Son Co., of Cleveland, Ohio, has just sold one of its largest brick machines to Montague & Co., of Chattanooga, Tenn.

ATTENTION is called to the Richmond Fulton Steam Boiler Works and Foundry's special notice to steam users on page 16 in this issue of the MANUFACTURERS' RECORD.

THE Clayton Air Compressor Works, of New York city (works in Brooklyn), announces to its patrons and the trade that its offices have been removed from No. 43 Dey street to the Havemeyer Building, No. 26 Cortlandt street.

THE MESSRS. Benton & Upson, of Jacksonville, Fla., have placed orders with McLanahan & Stone, of Hollidaysburg, Pa., for a large amount of phosphate machinery, consisting of wood log-washers, screens, etc. This plant will be erected in the hard-rock district of Florida.

AN opportunity for an investment in gold-mining is offered in our advertising columns by Thos. A. Dolan, of Arizona, who desires to sell two free-milling gold properties. It is claimed that the ore will mill \$10.00 per ton in gold on one property, and in the other is said to run as high as \$30.00 per ton.

ATTENTION is directed to the advertisements of "Virginia" in this issue of the MANUFACTURERS' RECORD. A chance for a good investment is offered in a valuable Virginia property containing pink, black and gray marble deposits, ochre, brick clay, etc., which is now for sale. This property would especially be valuable to persons who could devote their time to its development.

SPECIAL attention is called to the advertisement of the Frictionless Metal Co., of Richmond, Va., in this issue. "Frictionless" metal, which the company advertises, is now in use by some of the largest concerns in the world. It is claimed to be made of only the most carefully selected and refined stock, of exact proportions, and under an entirely new and improved chemical process, which imparts to it distinctive qualities. Consumers will find it to their interest to investigate its merits.

OWING to the important proportions assumed by the brick-drying branch of the Standard Dry-Kiln Co.'s business, it has removed its main office and warerooms from Louisville, Ky., to Indianapolis, Ind., thus securing a more central distributing point. The Standard Company's plant has been equipped with increased manufacturing facilities, and the trade will be supplied more fully if possible than heretofore. The company has issued a new pamphlet giving full description and illustrations of its brick-drying plants, and is pleased at all times to correspond with interested parties. A special catalogue devoted to the Standard patented system of steam floor piping for applying to any drier has also been issued.

THE Corbett Mill & Machine Co., of Washington, D. C., builder of cereal mills and furnisher of general machinery, etc., have lately closed contracts for the following machinery and supplies: One eighteen horse-power boiler for Fort Meyer, Va.; one five horse-power engine and boiler and one vertical corn mill to R. H. Davis, Bristoe, Va.; two 18-inch turbine water wheels and supplies and machinery for saw mill for Browning & Son, Wytheville, Va.; one 24-inch planer to Mr. Morris, Roanoke, Va.; A. H. Williams, Bland C. H., Va., a 30-barrel roller mill complete; J. W. Lankford, Chilhowie, Va., a 75-barrel complete roller mill and two 48-inch turbine water-wheels; one thirteen horse-power engine to West End Steam Laundry, Washington, D. C.; J. M. Gwynn, Chatham Hill, Va., a 30-barrel roller mill; machinery and complete outfit for making cracker-dust to Havener's Bakery, Washington, D. C., and a large amount of machinery, pulleys, etc., to others.

THE Philadelphia Engine Works, Limited, is in receipt of an order for one of its Corliss winding engines from the Chamberlain Coal Co., of Pottsville, Pa., Francis A. Pocock, engineer. This winding engine has 34-inch steam cylinders, 60-inch stroke, to be operated by steam at 125 pounds pressure per square inch, generated by a battery of Stirling boilers. The engine is to be of the standard Philadelphia Corliss liberating valve-gear, controlled by a sensitive governor of the "Porter" type. The engines are provided with the Stevenson link, reversed by steam gear, with an oil cataract. The hoisting drums are ten feet in diameter, ten feet long, with powerful hand and steam brakes. The adjustment of the lift is effected by a toothed gear clutch, thrown in and out with worm gearing. The main-shaft bearings are seventeen inches in diameter by thirty inches long, the body of the shaft between the bearings being nineteen inches in diameter, the central bearing being 19x30 inches. The engine is to lift an unbalanced load of 50,000

pounds at the rate of 1000 feet per minute. The engines and drums will weigh about 325,000 pounds.

A Free-Trader's Argument in Favor of the Wilson Bill.

Editor Manufacturers' Record:

It strikes me you do not take cognizance of the fact that protection in this country has been carried far beyond a safe limit, and that, as a result, protectionists are now faced by a dilemma which cannot be dodged.

What is protection? Let us consider this question honestly and fairly. You reach an intelligent class of readers, business men, and it would be folly to lay before them the clap-trap arguments of politicians, the assertion, for instance, that the foreigner pays the taxes, etc. These arguments may do, and at times be justified, for influencing the voting of ignorant laborers and equally ignorant farmers, but they are not likely to find credence among business men, and it would be deplorable if they should.

What is protection? Simply stated, it is a system by means of which those industries which are not subjected to, or which, because of natural advantages or other causes, can easily meet the competition of the world, are taxed for the benefit of other industries which cannot, unaided, hold their own against the competition of the world. In other words, it is a transfer to the shoulders of Peter, who is strong, of a portion of the burden of Paul, who is weaker or harder pressed.

Protection is justifiable to a certain extent only, on the grounds of the general welfare of the people, since without it we would be dependent on foreign manufacturers for some important goods, and this, for obvious reasons, would not always be desirable; at times might cause us much loss and trouble. The extent of protection which can be granted, however, as can be readily seen, is limited by the profits of the non-protected industries. We cannot safely impose on these industries burdens greater than they can conveniently carry. It would be folly to place on the shoulders of Peter, in addition to his own burden, so much of the burden of Paul as would crush him to earth, for then both would suffer.

This, unfortunately, is now the condition of the industries of this country, and hence the widespread depression of business. Can any intelligent man who has studied the subject honestly deny that the non-protected industries of this country are overburdened? Are these not facts plainly and easily seen, which prove conclusively that they are? Let us take, for instances, those two great branches of agriculture, the planting of cotton and wheat. Why is it that while farmers who plant cotton or wheat cannot borrow money on farm mortgages at rates of interest lower than from 8 to 15 per cent. per annum, the average manufacturer engaged in a protected industry can easily borrow money on his plant at from 4 to 7 per cent.? Why is it that capitalists do not care to make loans at reasonable rates of interest on farm mortgages, even to the extent of only two-thirds the value of the security? Simply because in too many instances they are compelled to foreclose such mortgages, and farms rarely bring at forced sales more than one-half their value. Why is there such great unrest among the farmers of the West and South, and the North and East as well? Why do they advocate the free coinage of silver, the alliance sub-treasury scheme, State-bank issue, greenbackism and other means for an inflation of the currency? Because they believe that our volume of currency is insufficient, and therefore under the control of mythical "money sharks in Wall street," who are thus enabled to oppress and rob them. They are mistaken. Their inability to

borrow money cheaply is due to their inability to meet their obligations promptly, and this is caused by the fact that farming does not pay, because overburdened by tariff taxation.

The fact that this is the real and only important cause of their suffering cannot be made quite clear to the mass of farmers. Most of them know, of course, that the tariff bears heavily upon them, and they therefore favor tariff reform, but they regard this as of secondary importance. They prefer to believe in the fantastic theory of an insufficiency of currency, and, unfortunately, there are many prominent and otherwise intelligent men who hold the same views. Witness the desperate and prolonged struggle against the repeal of the Sherman silver law in the United States Senate during last summer and fall. Would this law have been repealed had the President been a less strong and determined man?

The agitation for the inflation of our currency, which threatens the financial stability of the government, has not ceased. It still goes on, and unless the tariff be reduced so that the profits of the protected and the non-protected industries will be more nearly equalized, this agitation will continue until its object be accomplished. It is necessary, imperatively necessary, that the tariff be reduced as promptly as possible. Can't you, Mr. Editor, see the great danger ahead of us? Why do you oppose the proposition to place coal and iron ore on the free list? Coal and iron ore are natural products, gifts of Providence, and the miners of these can stand free competition with the world as easily at least as can our farmers. You are wrong in your fight against the Wilson bill, for in no other way can the tariff be more effectively and heavily reduced without seriously injuring our important protected industries than by placing coal and iron ore and other raw material on the free list.

Can't you, Mr. Editor, see the dilemma protectionists are now facing, and which they cannot possibly dodge—the dilemma to which I referred in the opening of this article? Can't you see that the defeat of tariff reform will cause the success of the inflationists? The tariff must be reduced, and unless protectionists are blinded by greed they will not oppose its being reduced, as otherwise all our industries will go down in the ruin which would inevitably follow the destruction of our financial system.

MAX K.
Charleston, S. C., January 25.

QUEEN & CRESCENT ROUTE.

"Glimpses of the World's Fair"—A Selection of 192 Gems of the White City Seen Through the Camera.

This handsome volume, containing 192 photographic half-tone views of the entire exposition, showing all main buildings, all State and Territorial buildings, all foreign buildings, grounds, statuary, lagoons and about forty views of the great Midway Plaisance, will be sent to any address on receipt of twenty-five cents and five cents for postage. This book has been issued by the greatest of Southern railroads—the Queen & Crescent route—and its excellence is without a flaw; a most delightful collection of exquisite views in a small and convenient-sized book. Many such collections are large and cumbersome. Send your address and thirty cents to W. C. Kinearson, general passenger agent, Cincinnati, Ohio.

READ HOUSE, Chattanooga, Tenn., is one of the most favorably-known hotels in the South; attested by its register record; second to none in the number of names enrolled therein daily. Its situation immediately in front of the union depot, and at the same time in the centre of the business portion of the city, makes it at all times the commandant of the patronage of the tourist as well as commercial man, who have made it headquarters in Chattanooga for years. We bespeak for the Read continued popularity.

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THE White Train for New York leaves the New York & New England station daily, Sundays included, at 3:00 P. M. It carries passenger coaches and dining car, as well as parlor cars. This train runs via Willimantic, and is the shortest rail line between the two cities. The arriving time at either terminal is 9:00 P. M.

and more to the legitimate ways of the South's business interests. If these conditions continue they will produce a most important effect for the better throughout the Southern States.

BUSINESS CONDITIONS SOUTH.

Extracts from Letters to the Manufacturers' Record.

Catoctin Furnace, Md.—Catoctin Mountain Iron Co.: "Will put our furnace in blast when Congress ceases to study and legislate in the interest of foreigners, instead of their own country. Business here, like other points in the United States, flat, dead, and will remain so until the people send practical business men to represent them, instead of theorizing politicians moved largely by hate and prejudice to a policy inaugurated by their political opponents."

Stuart, Va.—Messrs. Lybrook & Clark: "The general outlook for business enterprises in this county (Patrick) is very encouraging. This among the few counties of the State of Virginia has withstood the money panic, and has experienced no failure in any business whatever during the severe trial. We have a variety of products, all the finest quality imaginable. Our fruits, except peaches, we are confident cannot be surpassed in quality in the United States. All we need to make us as prosperous as any people is development."

New Castle, Va.—Messrs. Voder & Slusser: "The outlook is not especially cheerful, but there are signs of a slow recovery from stagnation."

Hillsboro, Texas—Mr. George I. Jordan: "The outlook for business in this section is certainly good, and also the manufacturing interests. The Vulcan Iron Works is now in course of construction, a business intended to do all kind of machinery work and molding, both iron and brass; it is owned and managed by H. P. Collins and myself, the firm being Collins & Jordan."

King's Mountain, N. C.—The Dilling Cotton Mills: "We think the outlook is very good."

Anniston, Ala.—The Villa Rica Lumber Co.: "The Anniston Cordage Co. has received several new looms for the manufacture of cotton carpet, awning stripes, ticking, ducking, etc., a line of goods, we understand, not made elsewhere in the South. This is one of our new enterprises and promises to be one of our best. It reports that it is crowded with orders. We think from now on we will be able to give you good many items. Business looks somewhat brighter. For the first time in five or six months we are crowded with orders ourselves."

Baker's Mill, Fla.—J. T. Roberts, of the Suwanee Turpentine Co.: "Business prospects fair to good. One short line of railroad and one saw mill, also guano factory, will be and now is under construction."

"Splendid Service for the South."

Mr. William M. Furman, of Raleigh, N. C., in a letter to the MANUFACTURERS' RECORD, writes:

"It gives me pleasure always to assist the MANUFACTURERS' RECORD, knowing for a period of years its splendid service for the South."

THE granite mountain which furnished the material for the new Statehouse in Austin and is now supplying stone for the Galveston jetties is thus described by a correspondent: "This great mountain of stone is situated two miles north of Marble Falls, on the Austin & Northwestern Railroad, and is 175 feet high and covers seventy-five acres of ground. The road has built a track at the base of and entirely around the mountain for the purpose of loading with convenience the many tons of granite that are daily shipped from there."

THE WEEK IN THE SOUTH.

Condition of Business and the Latest Features of Southern Progress Summarized.

The week has been notable for the number of proposed municipal improvements and real-estate transfers, aside from the list of industrial enterprises. Many projects for water works, electric-light plants, etc., show that there is a desire on the part of Southern towns to take advantage of the low rate of money and make needed improvements. The active demand for approved bonds continues. The Macon sewer bonds, for instance, are sought by several Northern bidders. The readjustment of the Atlanta Consolidated Railway finances on a satisfactory basis indicates the faith New England creditors have in the South. The modified plan of Richmond Terminal reorganization has been approved by most of the security holders. Large land sales in Texas and in the suburbs of Georgia and South Carolina towns, the latter for residence sites, indicate much greater activity in the real-estate market, while the visits of several parties of capitalists to different sections of the South show that the outside desire to invest in this part of the country is strong. Local causes, such as bad weather, have affected trade somewhat, but reports from the principal Southern cities indicate that this can only temporarily retard the manifest increase in business.

Among the more important projects developed during the week are the 60-mile extension of the Savannah, Americus & Montgomery Railroad to be built at a cost of \$600,000, a \$1,000,000 company to build an electric road between Baltimore and Washington, a company to build a telephone line 167 miles long in Arkansas, a \$100,000 coal-mining company, a \$100,000 factory and a large combination building in West Virginia, a water-works plant and zinc furnace in Virginia, a phosphate plant, cigar factory and \$100,000 railroad depot in Florida, a mining company, packing plant, cigar factory and guano works in Georgia, a fertilizer and reduction works, also tobacco factory, in North Carolina, a \$50,000 barrel factory and a flouring mill in Kentucky, a foundry in Louisiana, also one in Texas, and a \$100,000 ice plant.

Want a Non-Leaking Roof.

AUGUSTA, GA., February 26.
Editor Manufacturers' Record:

Can you kindly advise us where we can get a roofing material that will not leak when covered by snow or heavy sleet? Our roof is almost square pitch, is covered with good, well-sealed and painted tin and is less than two years in use, and is perfectly tight until we happen once or twice a year to have a few inches of snow or sleet, when it drifts to the valleys next to parapet wall and banks up a foot or more, and when the thaw comes, in comes the water from a thousand places. Our very best mechanics have done their best and are utterly unable to remedy the trouble. The theory advanced is that the great change of temperature from our hot summer sun to snow, by expansion and contraction, pulls the seams loose, but there must be some means known in the North of putting on a roof that will stand the snow. Our roof is about 120 squares, and there are three or four others about the same size that suffer as we do who are waiting to hear from this letter with a view of putting some other covering perhaps over the tin.

Can you not advise us what to get and from whom, or refer this letter to some of your advertisers or friends who will be glad to sell such material as we want? It is our desire, if possible, to get a covering guaranteed to stand our heat and cold and not leak, and, of course, we want something that will be lasting.

PAUL MUSTIN & CO.

Southern Water-Powers and Their Future Utilization.

By W. J. Thalkston.

The perfecting of apparatus for the successful transmission of power by electricity will surely bring before the world more conspicuously than ever the resources of the South. Cheap power means many manufactories. Natural gas has supplanted coal in the petroleum regions, and the many now inaccessible water-powers in the South will as surely supplant steam.

It is a remarkable fact that the first transmission plant successfully established in this country was not in the East, as one would naturally suppose, but in the far West, being between Oregon City and Portland, a distance of thirteen miles. Since the installation of this plant the progress has been rapid, especially in the West, culminating in the gigantic scheme now fully under way in the East—Niagara.

The probable reason for Western development leading other sections lies in the fact that coal was high and water-powers numerous and undeveloped.

When it is realized that coal will average \$3.00 per ton throughout the manufacturing sections of the South, and at this price steam cost between \$35.00 and \$50.00 per horse-power per annum, while, ordinarily, water-power does not exceed \$5.00 to \$10.00, the difference is striking. Now, what are the conditions already existing and ripe for development in the South? There are hundreds of towns and cities where, under the impulse of public spirit and the wonderful new growth of the new South, cotton mills, street railways, electric-light plants, already exist. It is probably no exaggeration to say that in the Piedmont region of the Virginias, Carolinas, Georgia, Alabama and Tennessee there is no city or town where does not exist within fifteen or twenty miles, and in many cases less, undeveloped water-powers of abundant capacity to operate every cotton mill, street railway, electric-light plant and all other industries that require power.

Except under extraordinary conditions the hydraulic and electric cost of development, including transmission, will not, in large units of power, exceed \$15.00 per horse-power per annum up to a distance of ten miles. This cheapened power means dividends on plants that are now falling behind in their interest accounts. It means the starting of new wheels and the hum of new machinery, for cheap power most certainly will attract and develop capital and manufacturing interest from every part of the country.

Look at the Southern cotton mills. The dividends, amounting to over \$300,000, paid by the mills in and around Augusta, Ga., during 1893 have attracted general attention. The reason is not far to seek. Cheap power (\$5.00 per horse-power per annum for water taken from canal) explains the whole situation. The city of Augusta invested a million or more to make the immense power of the Savannah available. The investment is now yielding handsome returns. But every Southern city is not so fortunately situated, and those which are on rivers probably cannot afford to develop existing powers by costly canals. But there are hundreds of Southern cities that can, by going ten miles, harness the horse-powers that are going to waste in the rivers and make them do their bidding, from the running of a fly fan to the operation of a cotton mill, and at a less cost than steam is now being produced.

Another source of cheap power. Throughout the coal-bearing regions of the South there are many mines, open or well located, that lack a railway to make them profitable. It will cost less to transmit the power by electricity, locating the steam plant at the mouth of the mine, than it will to haul your coal if you owned the railroad. The day is coming, and rapidly,

too, when power for all industrial life will be electricity, generated by steam at coal mines or from contiguous water-power. Indeed, one maker of electric-heating apparatus claims that from conclusive tests electricity for heating purposes at \$60.00 per horse-power per annum is equivalent to anthracite coal at \$7.00 per ton. Electric cooking has ceased to be a novelty. May not even those of the old South who have reached the full measure of three score years and ten live to see the day when our water-powers and our inaccessible coal mines may be brought to our doors and, without smoke or smell, become our obedient servants through the transmission of these energies by electricity?

There is still another class of enterprises that are seeking cheap power. The wonderful success that has attended the manufacture of cotton in the South has led many old mills located at convenient water-powers to keep adding to their plant from year to year until they have outgrown the capacity of their water-powers. Then steam was added, until probably a third of the power used is steam.

I have just such a case in mind. Twenty years ago a small mill was built. As the river afforded 1500 horse-power, no thought was ever entertained of the power ever being fully utilized. Wonderful success attended the venture until today it is one of the largest mills in the South, and has exceeded its water-power capacity by nearly 700 horse-power. Within ten miles there is a water-power that exceeds 1200 horsepower that cannot possibly cost over \$15.00 per horse-power delivered at the mill shaft. The day is not far distant when the far-seeing president will be using this water-power, now ten miles away, instead of steam, for he will save over \$10,000 annually by the operation.

Numerous other instances could be cited, but one is sufficient to show the point in question. Let investors look after water-powers. Let our people call attention to their advantages, and capital seeking legitimate investment will as surely turn to them as the needle turns to the pole.

Prizes to Exhibitors.

As a special incentive to exhibitors the Interstate and Industrial Exposition at Macon, Ga., will offer special premiums for the best articles manufactured from Southern product. Assurances have been received that Florida, Alabama, Tennessee and the Carolinas will be well represented, and the probability is that at least six States will have exhibits on the grounds.

L. C. CANNON, secretary and treasurer Thomson Gold Mine Co., Spartanburg, S. C., writes to the MANUFACTURERS' RECORD as follows: "Ours is not a boom property, but a valuable property long neglected, with a history of ante bellum days, when the star in the West drew miners away from former haunts to the golden Pacific. We are developing this property under the Dahlonega hydraulic system and have no cause for fear of its paying qualities. The formation is talcs, micaceous slates, with wide veins of free gold in quartz, and stratified quartz, gold-bearing, intermingled through the binding slates, which are generally very soft. When we reach water-level at six feet from surface we naturally come in contact with pyrites, very rich, and the resultant gold always round, nuggety; never flat or flaky. We have numerous large veins from three to twenty feet wide, but have as yet only hydraulicked a portion of one vein through old work to a depth of forty feet, and yet have not touched the lowest tunnels of the old primitive work."

THE Young Men's Business League at New Orleans, although but recently organized, now has 600 members. Frederic J. Cooke has been chosen secretary, and E. L. Biemiss, treasurer.

The "Boom" as an Educator.

JACKSONVILLE, ALA., March 3.

Editor Manufacturers' Record:

During the so-called "boom period" great hopes were entertained that this lovely little town, the county seat of Calhoun county, situated in the very heart of the richest mineral region of Alabama, would become a large manufacturing centre. During that delusive era, however, there was a conservative caution about every movement made by its promoters, that in the midst of the general dullness and depreciation that now prevails it has lost little of its prestige. The few industries that were started have been successful and solvent; the many improvements that were made add largely to the general thrift, and outside a few speculators in town lots no investment prudently made and honestly managed has suffered.

In the tidal wave of anticipated prosperity now surely waiting to flow in on this favored country you will hear from Jacksonville.

The "boom" was a great educator. Its collapse conclusively proved that no amount of advertising or building or improving will attract population to a town that has not abundant natural resources to employ the newcomers permanently and profitably. The South today is strewn with the wrecks of large industries most unfortunately located—built with a view to impossible markets and miscalculated cost of production. Worse still, hundreds of old, worn-out plants were unloaded in this country from other sections. Failures at home, there was slim chance of their success in a country bereft of capital and absolutely bare of skilled labor. But they answered the purpose of the town-boomers, and whilst the buildings were being erected for them, the prices of town lots advanced.

We hear a great deal said of losses in the South owing to the failure of boom towns and improvident investments made by persons who never saw what their money was invested in. Those persons took a gambler's risk, and, having lost in the game, have little reason to complain.

But we hear nothing of the successful investments of Northern capital in banks, cotton mills, coal mines and hundreds of other institutions that are flourishing in these parts in the face of the most serious and pinching season of depression the country has ever experienced.

There is no risk of prudent investment in the South if the object is wisely chosen. Practical knowledge, economy and honest administration have been as successful here as in any other part of the country. There are some things which must necessarily be more prosperous in the South under wise, practical direction than elsewhere, and there are others that can never be for want of favoring conditions.

In the new era that seems to be dawning on this section the lessons learned in the past will strongly influence the future. The next advance will be on the line of the extensive manufacture of that which is cheapest and most abundant. And first of all, we are bound to see an enlargement of the cotton-manufacturing industry. Throughout the entire South there is no place more singularly favored by nature for the successful establishment of a large cotton mill than Jacksonville. Magnificent springs rise in the mountains all around and flow down through the town, rising to the magnitude of creeks. These cool, limpid waters flow incessantly summer and winter without diminution in volume sufficient to supply a city of 50,000 people. The country around is a vast cotton field, producing the very best quality of upland middling staple. Within twenty miles by rail is one of the best coal fields in the State. Two railroads, the East Tennessee, Virginia & Georgia and the East & West Railroad of Alabama, compete for the business of the

town. Every material needed in building a mill is at hand—lumber, sand, lime, sandstone, brick clay and slate. Steam coal of the finest quality is laid down at \$1.25 a ton. Elevated 800 feet above sea level, the climate is salubrity intensified. In midsummer the cool mountain breezes sweep down through these beautiful valleys, making the nights delightful and the mornings bracing and healthy.

A New England expert, one of the best known mill architects and engineers, visited this place in 1890 and said that in all his travels in the South Jacksonville was an ideal location for a large cotton mill. The purity and abundance of the water, the cotton supply, the cheapness of fuel and the salubrity of the climate was all that could be desired.

These magnificent advantages are destined to be put to practical use before many months. Before the beginning of the late business depression, the Union Cotton Mills Co. was organized with a view of erecting here one of the largest and best cotton mills in the South with a capital of \$200,000. The intention of its founders was to build a mill for the manufacture of bleached goods. One of the most successful and practical New England mill managers resident in the South offered to take charge of the enterprise. Indeed, it was his conception. Half the capital had been secured when the financial storm broke, and the subscribers and promoters agreed to postpone the enterprise until the business affairs of the country shall have become settled. The anticipated revival of business has caused the originators of this enterprise to take up the work where they left off. Negotiations are about being resumed and the work of organization perfected. The character of the men who have this enterprise in charge is in itself a guarantee that honesty, economy and good management will prevail from the start. It will be a New England plant, with Southern connections of the very highest order. Indeed, it would be impossible to find in the entire South a better class of men than those who have taken the matter in hand, and who reside here. They are noted for good judgment, conservative action and successful to a very remarkable degree in their own affairs.

The plan of inviting the absolute control of practical New England people where investments have been made in cotton manufacture in the South has resulted in sound bus. methods and large dividends. They are great educators, and this country needs practical instruction as much as any known want. If we had more of it in these parts we would have less bad politics, sounder financial notions and be generally benefited. The liberality of the citizens of Jacksonville to the new enterprise has been of the most bountiful character.

The control and use of one of the largest and purest of the springs have been donated to the mill by the town council, and the riparian rights, equal to 100 acres of land inside the incorporated limits of town, conveyed free. The State of Alabama exempts from taxation for five years all properties, real and personal, of any cotton mill or establishment of industry erected in the State. The Jacksonville board of councilmen generously agreed to exempt the Union Cotton Mills from municipal taxation for the same time.

The Jacksonville Mining & Manufacturing Co. has been munificent in its donation—fifty acres of land, already platted and laid out in lots adjacent to the railroads, and the right to take free from the extensive properties of the company adjacent all stone, sand, timber, slate, brick clay and materials for building. The very best steam coal is assured at the low cost of \$1.25 a ton. With an abundant supply of cotton, cheap fuel and an unequalled climate, the purest water in the greatest

plenty, excellent railroad and banking facilities, and a liberal, law-abiding and hospitable people, high-toned and moral, we are prepared to stretch forth our hands to the newcomers and bid them a hearty welcome. The skilled mill people will here find comfortable homes in a land of almost perpetual summer, good schools and churches for all the leading denominations (Episcopal, Baptist, Methodist, Presbyterian, Catholic), complete political and religious tolerance, and kindness and charity beyond measure.

Such is the union that is most needed in the South; not the vaunted union with the West so much talked of by the politicians, but a cordial union with the hardy, thrifty, industrious people of the Eastern States and of New England, which in old times sent so much good blood into the South, and which now outcrops all over this section in successful men of business. There is a universal desire in this section to have less politics and more business. The masses of the people would gladly welcome the day when participation in political matters would be a recreation a few days before the elections and entirely forgotten a few days after. The South will never see this desired rest until her spindles are humming, her furnace fires aglow, her fertile fields once more responsive to the hand of the contented husbandman and her millions of agricultural laborers educated up to some more profitable occupation than raising six-cent cotton.

There is another fact worth alluding to, and one of the greatest importance in connection with investments South. Of all the Southern States, Alabama has been most liberal to the manufacturing element. There are no harsh laws in her statutes repressing capital or antagonistic to its investment. There are no enactments interfering with the management of business. The State has always been very conservative in this respect, and this was exhibited in a very marked manner by exempting new industries from taxation for five years. The laws governing corporations are exceedingly broad and liberal, and assessments of property are fair and just. Labor is abundant and notoriously cheap. It takes little in this genial climate to feed and clothe a workman. Indeed, it is a very paradise for the factory operative, and that is the reason why we never hear of strikes or labor troubles in any of the great cotton mills of the South.

The day of the speculative boomer has passed. We are on the eve of a healthier and more stable movement. The mills to the cotton, capital to certain remuneration, population to the waiting places—these are the wants of the hour.

Our iron now sets the price in the country. It is only a matter of time when the Southern cotton mill will regulate prices in Manchester.

ALKANET.

Four Hundred Dollars from Five Acres.

F. M. Taylor owns fifteen acres of ground near Anniston, Ala., and is experimenting with diversified crops. Last year he gave cotton a fair test. He prepared three-fourths of an acre in the best manner, planted it and gave it good cultivation and raised from it 390 pounds of lint cotton, or at the rate of a bale to the acre. This sold for seven and seven-sixteenths cents per pound. This year he expects to make from 4000 to 6000 pounds of tobacco from his five acres, and believes it will bring at least an average of eight cents a pound. In other words, there will be a probable income of \$400 from the five acres. If he is successful in realizing half that sum the result will show what can be done with Southern lands properly cultivated.

AN important real estate transfer at Cordele, Ga., recently, was of twenty houses and lots purchased by J. E. Bivins, a capitalist, for investment purposes.

Copper Reported in Northwestern Arkansas.

CULP, BAXTER COUNTY, ARK., Jan. 31.

Editor Manufacturers' Record:

Three years ago an association of persons, of which the writer was one, located 440 acres of mountain lands in sections 23 and 26, township 17, north range 12 west, Baxter county, Ark., to mine zinc. Last June it fell to my lot to personally superintend and open this mine, build a camp, blacksmith shop, dam for creek and pond, burn charcoal, etc. Under the direction of John Woolfer, a life-long miner, with more than forty years' experience, ten of which have been spent in these mines of Arkansas, and who was the discoverer and at one time owner of the "Morning Star" zinc mine, of Marion county, this State, which furnished the jumbo of zinc that took the first and world's premium for zinc at the World's Fair just closed at Chicago, I began work with a small force and cut a drift into the mountain forty feet up the side by seven feet wide and at an average depth of say eleven feet. I began this drift 340 feet by the aneroid above Cataract creek waters, which run at the foot of the mountain. At the same time I worked one shift, beginning directly above this, and began another drift, running about twenty-five feet up the mountain, and cutting it seven or eight feet wide, with an average depth of four or five feet. About this time our lower drift gave us such excellent carbonates and silicates of zinc that we were assured by Mr. Woolfer and others of abundant success; so we laid by the drill and dynamite and cleared away and built "Our Camp," the blacksmith shop and other needed improvements. In November we began work again, chuted down about seventy tons of crushed rock from our zinc drift, at the same time blasting and digging away in the other drifts. On the 5th of January inst. we found a bunch or pocket of copper, sound and clear, of about two pounds weight, but not quite so heavy and pure as the samples sent you, in a solid Hilderberg limestone. From this on down the lime rock is more or less "shotted" with copper. These samples are down twenty feet perpendicular, and in the mountain forty feet horizontal, so you see that this is yet but the outcrop. On Friday, the twelfth, we discovered one of the mineral chimneys of this property on the north side and in the bottom of this drift. On Monday, the fourteenth, we uncovered the top to a perpendicular shaft about three feet in diameter and seventeen feet deep. This Woolfer and one of my men explored with lantern and hammer, and brought up samples from top to bottom which were all more or less impregnated, and the deeper the better, and Woolfer declares that the main body of copper is still below this shaft. This gives us full knowledge of at least twenty-two feet deep of heavily-laden rock. We have outcrops all over the property; hence I do not hesitate to say that the depth and breadth is such that millions of tons may be mined and yet there will be other millions just as good. My personal examinations of the counties of Arkansas northwest from Batesville during the past four years have convinced me that all of the country from Syllamore, in Stone county, to Joplin, Mo., is mineral-bearing in lead, zinc, copper, a little silver, traces of gold and an abundance of the finest fossiliferous marble in the world. I repeat that without doubt we have the finest fossiliferous marbles, of nearly all shades and colors, in the world in these counties. I have found good carbonate and silicate of zinc outcrops as low down as Syllamore creek, near Syllamore town, and on up both sides of White river, so that they include in our State all or large parts of Stone, Baxter, Marion, Searcy, Boone and Newton counties. Since there is quite a